



New MacBook Pros Tested and Rated

Macworld

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Hello, iPhone

**Hands-On with Apple's
Breakthrough Device**

FULL REVIEW:

- Cell Phone
- Music and Videos
- Web and E-mail



How To:

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page 76

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Monticello Raceway, photographed by Bill Frakes



**Aperture Profile: Bill Frakes,
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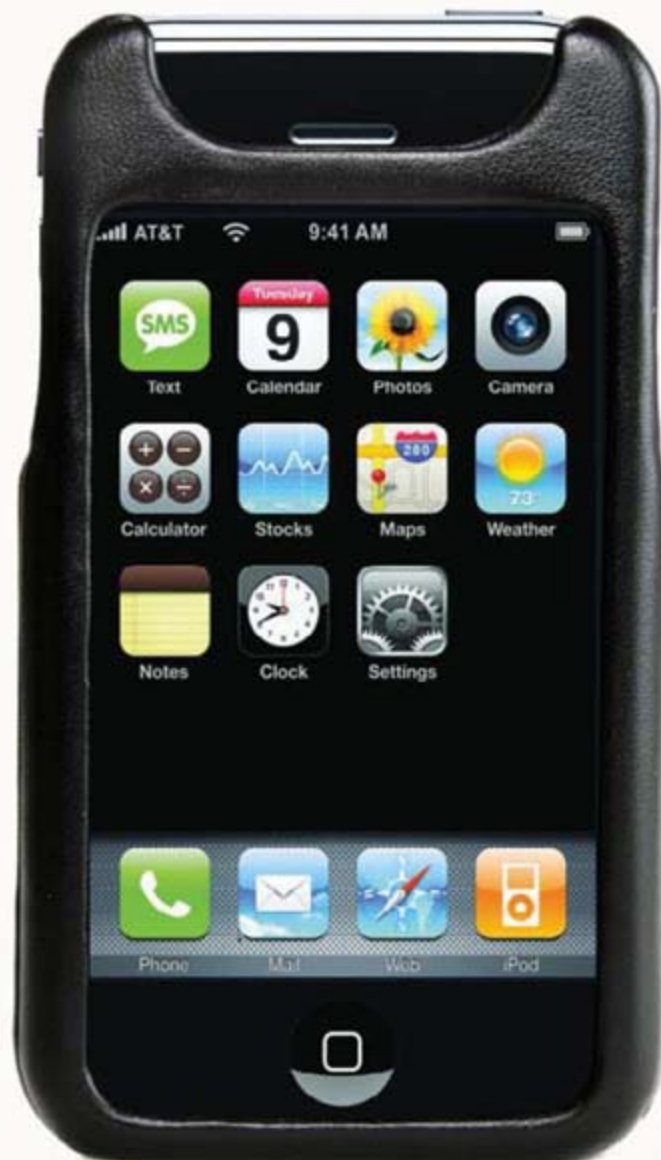
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The iPhone Hits Shelves **20**



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On the Cover
Photograph by
Peter Belanger



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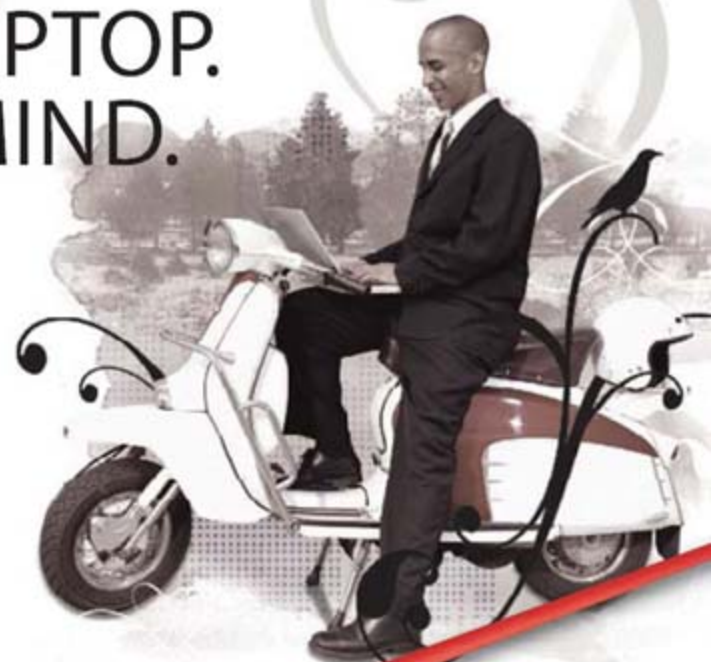
The top 5 stories on Macworld.com are:

- 1 WWDC Live Keynote Coverage**
Macworld editors report live from Apple's Worldwide Developers Conference in San Francisco (macworld.com/2914).
- 2 Parallels Desktop 3.0 for Mac Released**
The latest version supports 3-D gaming and adds a new feature called SmartSelect (macworld.com/2915).
- 3 Apple Bumps MacBook Pro—Faster CPU, Memory, Graphics**
Apple refreshes its pro line of laptop computers (macworld.com/2916).
- 4 Developers See Possibilities in iPhone Apps**
Steve Jobs announced that Apple is working to make its mobile phone open to outside developers (macworld.com/2917).
- 5 Revised Desktop, Finder Highlight Leopard Additions**
New OS features were among the changes introduced during the WWDC keynote speech (macworld.com/2918).

(Ranking valid as of June 22, 2007)



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Not Just a Phone

Why you need to know about Apple's iPhone—even if you won't be buying one

For the second time this year, we have put a phone on the cover of *Macworld*. We know that this will lead many of you to wonder what the heck is wrong with us. After all, the letters will point out, this isn't *Phoneworld*, is it?

No, it's not. But then Apple's iPhone is not just a phone, either. It's also a full-featured iPod and—more importantly for *Macworld* readers—the smallest Mac ever. The iPhone might weigh less than five ounces and rely on a revolutionary new touch-screen interface, but it runs OS X. When you browse the Web on it, you're using the same WebKit technology that drives Safari on your Mac.

That's not the only Mac connection, of course. The iPhone is an important addition to the list of products you can attach to your Mac. And unlike most phones, which require add-on software to sync with Macs, the iPhone directly integrates with iTunes, Safari, iCal, and the rest of Mac OS X.

The New, New Thing

The original Macintosh changed the world by relying on a mouse to move a cursor around a graphical computer interface. The iPhone does it one better: When you slide your finger across the iPhone's screen, the photo, Web page, or e-mail message, or whatever else that screen is displaying, moves along with your touch, as if you were moving an actual, physical object. The iPhone has no cursor because your finger is the pointer.

There's no telling whether the iPhone's touch-screen interface will find its way into other products. I wouldn't expect Mac OS X 10.6 to throw out 25 years of interface development. But the iPhone is so innovative that I find it hard to believe it'll have no spin-offs. It's entirely possible that Apple's innovations in the world of small devices will end up leading to related innovations on the Mac side.



Early reviewers were shocked—shocked!—to find that the iPhone had flaws.

I also wouldn't be surprised to see more devices powered by OS X that aren't Macs as we know them today. It's easy to imagine, for example, a laptop that's more full-featured than an iPhone (offering a bigger screen and a real keyboard, say) but still much smaller than a MacBook. The iPhone and (to a lesser extent) the Apple TV have shown that OS X can be crammed into tiny boxes. That could mean tinier Macs.

In any event, as a magazine focused on everything Apple—not just the Mac but also the iPod, the Apple TV, and now the iPhone—*Macworld* will continue to keep you up-to-date on everything the company does. Even if you're not interested in owning an iPhone, the product is important enough to the Mac's future that you should keep tabs on it. (Our new iPhone Central blog—iphone.macworld.com—is a good place to do so.)

The Backlash Begins

In the weeks leading up to the iPhone's launch, I frequently read that Apple was "overhyping" the phone. In fact, I think that Apple was pretty restrained.

After announcing the iPhone back in January, the company let the hype-storm build naturally. Trust me, if companies could simply buy the kind of attention the iPhone received before its release, they would. The iPhone attracted that attention on its own.

However, anytime expectations run so high, there's bound to be a backlash. In the iPhone's case, it began within a few days of the release. Early reviewers were shocked—shocked!—to find that the iPhone had flaws. And such reviews have continued in the weeks since.

You'll find my review of the iPhone at the end of this issue's iPhone story ("Meet the iPhone," page 58). No, I don't think the device is perfect. While the iPhone is a revolutionary product with huge potential, it's also a "version 1.0" product with plenty of weaknesses and missing features.

Writing a review like this makes me sympathize with movie critics who bridle at awarding a star rating to a movie. As useful as those stars (or in our case, mice) are to readers, trying to reduce your judgment about a film (or a complex product) to a number is in many ways futile. How am I supposed to reduce a product like the iPhone to a number between one and five?

In the end, we settled on a rating that honors the iPhone as a remarkable new product with some room for growth and improvement.

We're counting on seeing plenty of such growth and improvement. Apple expects to continuously add features to the iPhone through software updates. (And I don't doubt that updated hardware is already in the pipeline.) My bet is that the iPhones being bought today will be much improved just six months from now; the burden is on Apple to make it happen. ☒

Got a comment about the iPhone? Send it to iphone@macworld.com. Or call us with your iPhone and leave us a voice mail (for potential use on the Web), at 415/520-9761.



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How Reliable Is Your Mac?

Plus: spam, green computing, and cleaning your laptop

Smiles for Service

Your article "State of the Mac" (June 2007) confirms my experience with the excellent service you can get from Apple and its authorized service providers. I was in Australia with my 17-inch PowerBook (bought, with AppleCare, in the United States) when its screen started having problems. I took it to an authorized Apple reseller in Brisbane; two days later, my beloved Mac was back with a new screen. I can only imagine what would have happened if I'd had a Windows box in the same situation.

✉ John Uytendaal

There is a disconnect between your respondents' satisfaction with their Macs and the failure rates they report. Over 40 percent of Macs in the survey had problems with circuit boards, memory, or fans, and almost as many



had hard-drive problems, with some models topping 50 percent in those categories. Displays also had high failure rates. So it's baffling that over 85 percent of owners would rate that reliability a 9 or 10 (out of 10). Failure rates like that in the automotive industry would lead to immediate mandatory recalls.

✉ Jason Dougherty

Those component failure rates are a percentage of *all Macs that had problems*. Elsewhere in the article, we noted that roughly a quarter of all Macs in the survey had problems of some sort. So roughly 40 percent of roughly 25 percent had problems with circuit boards, memory, or fans.—Dan Miller

One area you neglected to touch on in your report on Mac reliability: What happens after AppleCare expires? My G5 is only a few months beyond the expiration date of its three-year AppleCare coverage, but it has developed a defect on its logic board (for the second time). It would cost more than \$1,000 to repair it. I think a computer should last more than three years and a few months. And if a problem occurs when

it's out of warranty, repairing it should not cost as much as buying a new one.

✉ Jim Hartel

I was surprised by one comment in your report on Mac reliability and service. Fred Morris, one of the people you interviewed, had received an apparently bum iMac; he said, "Apple didn't have to replace my iMac. They certainly weren't obligated to give me a better model than I returned." I'm sorry but, yes, they were! Before Morris received that new computer, he had to make two trips to the Apple Store, then send his computer back to Apple, and then wait for a new one to arrive. How long was he without a fully functioning machine? In my opinion, what Apple did was just. I don't think Morris should feel as though the company did him a big favor. He and Apple entered into a contract. He agreed to pay a thousand-plus dollars, and Apple agreed to provide a quality computing machine. Apple failed to uphold its part of the bargain. Replacing the original with one that worked was only fair; the "upgrade" was payment for his inconvenience.

✉ Jon Barresi

A Greener Apple

Michael Gowan's "Eight Ways to Go Green" (*Working Mac*, June 2007) was an excellent article, but it had one serious problem: The units of energy consumption cited in the article are incorrect. *Watts* measure the *rate* of energy consumption. So the phrases "you can save about 40 watts of electricity per day" and "you're losing an average of two watts per hour" make no sense. The article has a lot of useful information (I'd always wondered how much power was saved in sleep mode), but in its present form it's confusing.

✉ Evan Romer

READER POLL

Did the Apple options-backdating scandal change your opinion of Apple products?





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Apple's biggest competitor is, ironically enough, itself . . . Microsoft has managed to set its own bar so low, it's associated its brand with crap . . . Apple, on the other hand, has set its own bar to some iconic legendary status.

Samrod Shenassa
macworld.com/2861



You are right. I tried to make the numbers easy to understand, but I tripped over my good intentions. I should have used watts, not watts per hour. And when I calculated the money saved by shutting off a Mac, compared with letting it sleep, I should have used watt-hours. Thanks for pointing this out. (For a corrected version of this story, see macworld.com/2888.)—Michael Gowan

"8 Ways to Go Green" focused mainly on ways to reduce your power consumption. That's good, but it ignores another, more serious problem: Manufacturing electronics is an environmentally dirty business that consumes gigantic amounts of energy and potable water. Greenpeace recently ranked Apple as the least green of 14 major electronics manufacturers, for its use of toxic chemicals and its failure to set a timetable for phasing out the use of those chemicals. Of course, Apple has vigorously denied Greenpeace's charges, and many consumers also discount them. But whatever the merits of those charges are, getting the electronics industry to clean up its act is an essential first step in achieving truly green computing.

✉ **Les Simon**

Greenpeace has recently tempered its criticism of Apple, applauding the company's new environmental initiatives; read more about it at macworld.com/2889.—Dan Miller

Turned Off by the Apple TV

With all the hype and hubbub about the Apple TV, it took me a little while to figure out what the device actually does. It enables you to send digital content from iTunes to your TV, right? That's it? Then I pass. Two things would have to happen to make me care about the Apple TV: First, it needs to be able to stream *any* video content directly from the Web to my TV. Second, content providers (Apple included) need to solve the HD problem. Maybe the Apple TV will amount to something in a few years, but for now it's much ado about nothing.

✉ **Micah Dirksen**

Spam Fighters

Christopher Breen's review of antispam tools (June 2007) was excellent. Over the years, I have tried both SpamSieve and Spamfire with success. However, I have found a much easier and better solution to the problem of spam: Gmail, the free e-mail client offered by Google. I now filter all of my e-mail through a Gmail account, which catches 99 percent of my spam. It's easy to set up: You simply forward mail sent to your normal e-mail address to your Gmail address, and then download your e-mail from Gmail's inbox with whatever POP client you like (or through the Web interface). You can always view the mail that Gmail has filtered as spam. It's simple and free, and it works!

✉ **Daniel Blackburn**

It's a shame that your review of anti-spam software didn't include Spam Arrest, an online service that uses a challenge-response mechanism to filter your mail. I use this service in conjunction with Apple Mail, and it works almost perfectly, filtering out all the junk and only occasionally filtering out valid messages. It's also smart enough to monitor my outgoing messages: after I send a message to an address, mail from that address is allowed in. The icing on the cake is that the Web interface allows me to check mail, both valid and unverified, when I'm away from my Mac.

✉ **Rob Bonner**

One other tip for avoiding spam: Before my vacation last year, I set up an automatic "out of office" response through my ISP. Lo and behold, when I returned, my inbox was inundated with spam—and it kept coming. I'd advise your readers not to do the same. By the way, I bought SpamSieve on your recommendation, and it works *great*. It certainly deserves the five-mouse rating you gave it.

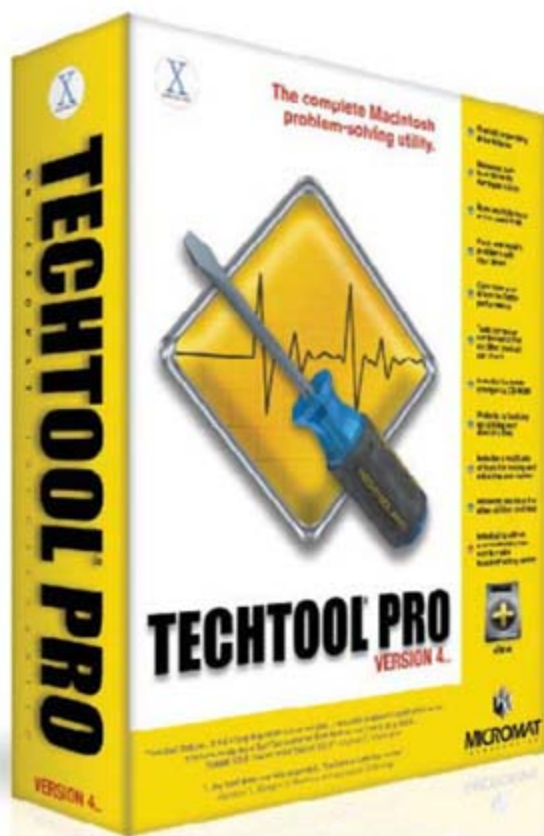
✉ **Lisa Wendt**

Correction

Due to a typographical error, the maker of SMARTReporter was misidentified in the "4 Things You Can Do before a Hardware Disaster Strikes" sidebar of "State of the Mac" (June 2007). Julian Mayer is its maker.

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Mac Beat



SMART PHONES

The iPhone Hits Shelves

Launch brings out crowds all over the country

Pete Jensen came to the Apple Store in Arlington, Virginia, with an iPod, a PDA, and a cell phone. He was hoping to leave with just an iPhone.

"Today, I've got three things in my pocket," Jensen said while waiting in line. "Tomorrow, I'll have one."

Jensen was hardly the only person with that plan. From coast to coast, the covetous and the curious stood in line at Apple Stores and AT&T retail outlets so that they could be among the first to lay their hands on Apple's new iPhone when it went on sale at 6 p.m. local time on Friday, June 29.

Line sizes varied from place to place—in Arlington, the line outside the outdoor shopping center easily

topped 100 people long before the Apple Store reopened at 6 p.m. (stores closed earlier in the day to prepare for the launch, and they stayed open until midnight). At the Apple Store in the Washington Square Mall in Tigard, Oregon, roughly 50 people were in line three hours before the iPhone's launch; only five people were waiting at a nearby AT&T Store. Lawn chairs were a much-needed accessory for those waiting in long iPhone lines.

Why Wait in Line? What drove the majority of people to queue up in front of a store for a device that they could order online? For many, it was the promise of something better than what they have now. Jason Miller, an environmental engineer from Arlington, Vir-

ginia, was looking to upgrade from his Treo, which he said "does everything about half as well as it should."

For a lucky few came the fleeting glory of being first in line for the phone. In Arlington, that honor went to Kevin Towson, a police officer from the Washington, D.C., area who got off his shift and lined up for the iPhone at 9 p.m. on June 28. Towson said that he was looking forward to plugging the iPhone in and syncing up his iTunes library, after a night with only two hours of sleep.

The first two people in line at the Danbury, Connecticut, Apple Store were 28-year-old Giovanni Scaringi and 22-year-old Oren Krinsky. Scaringi, who is from Orange County, New York, but goes to graduate school in Bridgeport,

PHOTOGRAPH BY MICHAEL NAGEL/GETTY IMAGES; IPHONE PHOTO COURTESY OF APPLE

Connecticut, arrived at the store at around 5 a.m. Friday determined to be the first person in the iPhone line.

Krinsky, who arrived about two hours later than Scaringi and still got the number-two spot in line, made a pact with Scaringi to safeguard each other's spot when one of them needed to head out for a bathroom or food break.

When asked how many iPhones they'd be purchasing—Apple Stores allowed each person to buy two iPhones, while AT&T stores limited each buyer to one—both Scaringi and Krinsky said that they were getting only one. "I want it for personal use, and I paid a \$200 fee to Nextel in order to get out of my contract," said Scaringi.

San Francisco At the San Francisco Apple Store on Stockton Street, marketing professional Jerry Taylor was first in line. Taylor, who'd been in line since 10 a.m. Thursday, hoped to show his boss, a BlackBerry user, how much better the iPhone is.

Other than getting an iPhone before everyone else, the first person in line gets another benefit—he or she also gets a share of media attention. Taylor said that he'd been interviewed more times than he could count.

An hour before the Apple Store on Stockton Street opened its doors, about 400 people were lined up, with the line snaking around the store for two-and-a-half blocks. At spot 153, Philippe Bartoszewicz of San Francisco waited his turn. "I've said the reason I'm here is because I'm going on a trip in a few days and want it with me. But really, it's because I'm obsessed," he said. "I didn't realize I was obsessed until people started asking questions about it, and I knew all the answers."

As people amassed in front of the Apple Store, there was a shorter line a stone's throw away, at one of the AT&T stores in downtown San Francisco. Roughly two dozen people were waiting in line late Friday afternoon, with 23-year-old photojournalism student Amanda Rybarczyk and 23-year-old J. Martin holding down the first two positions. Neither planned to use the phone they were waiting to buy;

both were looking to sell their phones on eBay.

"I really do want the phone at some point," Rybarczyk said. "But I want to wait for updates. Besides, we're college kids, hard up for cash, and it's better than selling blood."

Ryan Overdeest, a 22-year-old student on a summer internship at an equity research firm, was third in line at the AT&T Store. Unlike Rybarczyk and Martin, Overdeest wasn't planning on selling the iPhone he was there to buy. But he wasn't planning on using it, either. "I would love to have it for myself, but I can't afford it," he said. "I'm here for my boss. He sent me here as soon as I got in." Overdeest showed up for work at 6 a.m. Friday morning; he was in line 30 minutes later.

Back on Stockton Street, the crowd counted down to 6 p.m. and then started to sing *Auld Lang Syne*. Just

"Today, I've got three things in my pocket. Tomorrow, I'll have one."



after six, the store let people in, and Apple employees lined either side of the stairs, clapping and cheering.

New York City At the Apple Store in the SoHo section of New York City, there was a carnival-like atmosphere throughout the afternoon. The mood built to a climax, with a crowd of hundreds counting down from five right before 6 p.m.

Amid whoops and hollers, movie director Spike Lee was the first to walk into the store, saying he was there for charity. A Brooklyn, New York-based charity called Keep a Child Alive grabbed that first place in line earlier in the week, using its position to publicize its plans to auction an iPhone on eBay and use the money for charity.

Actress Whoopi Goldberg was second in line. When asked what she was doing there, she commented on the media crowding around her, saying, "I don't really know at this point." When asked whether she was going to buy a phone, she said yes.

At the flagship Apple Store on Fifth Avenue, the line of would-be iPhone buyers stretched down Madison Avenue and then went around the block; all told, the line went for about a quarter of a mile.

But it wasn't just iPhone shoppers who gathered at the Fifth Avenue store; reporters from NBC, ABC, CNN, and Fox News also were on hand. *New York Times* (and former *Macworld*) columnist David Pogue was going from section to section in the line, getting people to sing about the iPhone to the tune of popular songs.

King of Prussia Roughly 90 minutes before the iPhone launch, more than 100 people waited in line at the Apple Store in the King of Prussia Mall outside Philadelphia. Stephanie Haas of Lafayette Hill, Pennsylvania, was one of the first people in line at 7 a.m. Friday, when mall stores had not even opened yet.

"I wanted to guarantee I would get an iPhone today, but I wasn't looking to be first in line," Haas said. Although she's used a Motorola Razr cell phone in the past, the iPhone will be her first smart phone. "It seems easier to use than other phones," she said.



The line outside Apple's flagship store in San Francisco

Feeding the Frenzy When Steve Jobs introduced the iPhone in January 2007, he said that Apple hoped to capture 1 percent of the cell phone market, selling 10 million iPhones by the end of 2008. How does Apple expect to reach that number? Avi Greengart, principal analyst for mobile devices at Current Analysis, says that Apple is setting very reasonable expectations for what the iPhone will do.

"Apple is letting the iPhone sell itself—that shows a high level of confidence," says Greengart. "There are other products on the market that are cool, but they aren't fun. The iPhone is cool and fun."

But at the end of the day, the cool factor goes only so far. What people will expect is a phone that can handle all the calls, e-mails, SMS messaging, and Web surfing that they do during the course of a typical day.

"Is this device going to be the workhorse that people expect?" asks Mark Donovan, senior analyst at M:Metrics, a mobile-industry research firm. "The iPhone is one of the biggest technical challenges the company has ever faced." But he adds, "I have a hard time believing Jobs would state a number he wouldn't blow through."

Michael Gartenberg, vice president and research director at JupiterResearch, agrees. "Meeting the 10 million would be huge," he says. "If they are firing on

all cylinders, that may be a very low number." And so far, he says, "Apple has really met expectations and delivered the product they promised to deliver."

Some Hiccups Using an iPhone requires activating it with AT&T through Apple's iTunes application. Although that process went smoothly for many people who bought the iPhone as soon as it went on sale, others weren't so lucky. Some people encountered

problems with the activation process, leaving them without a phone number for longer than expected.

But Gartenberg sees this as inevitable with such a high-volume rollout. "This is a new process, but most of it was [because] you had 500,000 people trying to activate their iPhones over one week-end," he says. "There is a certain frustration when you spend \$600 for a device and want [to] use it right away, but it's not going to happen all the time."

The features that the iPhone lacks constitute another potential roadblock on the way to Jobs's goal of 10 million. Apple can add some features with software updates; other shortcomings may have to wait for the next version of the iPhone.

However, Ross Rubin, director of industry analysis for consumer technology at The NPD Group, doesn't see that as a huge deal. "Some things like 3G seem like a natural to add," he says, "but all told, out of the gate it can still do a lot of things that many other devices on the market cannot." ❌

Chris Barylick reported from Arlington, Virginia.

Mathew Honan reported from San Francisco.

Rob Griffiths reported from Tigard, Oregon.

Jeffery Battersby reported from Danbury,

Connecticut. **Aaron Freedman** reported from

New York. **Kate Marshall** reported from King of

Prussia, Pennsylvania. **Elizabeth Montalbano**

and **Ben Ames** of IDG News Service and **Jim**

Dalrymple contributed to this report.

MFC-9440CN, from Brother International (www.brother-usa.com): Color laser multifunction printer prints up to 21 pages per minute in mono-chrome or color at up to 2,400 by 600 dpi and scans at up to 1,200 by 2,400 dpi (\$700).

HARDWARE

C170 Wireless Desktop Set, from Kensington (us.kensington.com): Wireless multimedia keyboard and mouse set features a foldable keyboard with a built-in mouse-docking station (\$80).

NEWS IN BRIEF

Apple Releases OS X 10.4.10

While we wait for Leopard, Apple has released OS X 10.4.10 to address outstanding problems in Tiger. Among the changes is a fix for a problem in which a Bluetooth headset would sometimes show up in the Sound preference pane as an available device for sound output after it had been removed from Bluetooth preferences. The update also addresses several USB problems by improving the reliability of using the IR remote control after waking from sleep and by making it easier to mount external USB hard drives. And Intel-based Macs should no longer have a problem recognizing the TomTom GO 910 GPS device when connected via USB. The 10.4.10 update also adds Raw-image decoding support for several new cameras, fixes a problem in which some DNG images appeared tinted or distorted, improves the compatibility of Mathematica 6 with 64-bit Macs, and more.



iTunes Store Gains Ground

Apple's iTunes Store is continuing its rise in popularity as it moves up the list of the most common places for consumers to purchase music. A recent report from market research firm The NPD Group for the first quarter of 2007 places iTunes in third place among all music retailers. iTunes' rise is even more dramatic when you consider that the report doesn't just consider online vendors, but rather looks at all retailers, including traditional brick-and-mortar stores. In third place, iTunes captured a 9.8 percent share of total music sales, ahead of Amazon.com, Target, Borders, Circuit City, Virgin Megastores, and others. The only retailers that outpaced iTunes were Wal-Mart, with 15.8 percent, and Best Buy, with 13.8 percent.



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MAC BEAT



VIDEO

The Apple TV Gains YouTube Support

Update adds new streaming capabilities and more

In its first software update for the Apple TV, Apple delivered promised support for playing YouTube videos, as well as several other enhancements.

With the version 1.1 update, the Apple TV displays a new YouTube command that gives you access to Featured, Most Viewed, Most Recent, and Top Rated files.

You can also search content, but you shouldn't expect to find everything YouTube has to offer—only some of YouTube's content has been converted to the H.264 video type that Apple favors. But YouTube expects to have its full catalog available in H.264 format by this fall.

New parental controls let you configure your Apple TV to allow, restrict, or deny access to YouTube content. You also no longer lose the ability to access the



stock photos bundled with the Apple TV when you sync your own photos. When you choose either the Photos or the Slideshow command in the Screen Saver screen, you can select your library, an album you've added, or Apple's photos.

There's also a new way to view photos when the screen saver kicks in. In addition to the cool drifting-up-and-flipping-every-so-often display, you can now choose a slide show that acts very much like iPhoto's slide shows—complete with Ken Burns effects.

Users who wanted to view their photos via the Apple TV were miffed when they learned that photos got last priority in the syncing process. But the update lets you choose to sync photos ahead of other content.—CHRISTOPHER BREEN

WIDGET OF THE MONTH

Scenario Poker

If you're a fan of Texas Hold 'em, check out Scenario Poker from Scenario Software, the developer of the excellent iPoker game. The \$10 Dashboard version helps you learn the game by providing tips via on-screen odds and Scenario's patent-pending iPoker Card (scenario.com). —DAN FRANKS



HARDWARE

OWC 4GB PC5300 DDR2 667MHz DIMM Upgrade Kit, from OWC (www.macsales.com): Four-gigabyte memory kit is compatible with the 2.2GHz and 2.4GHz MacBook Pro laptops that Apple released in June 2007 (\$219).

Perfection V200 Photo Scanner, from Epson (www.epson.com): Forty-eight-bit color scanner features 4,800-dpi resolution and the ability to scan 3-D objects (\$99).

PRODUCT WATCH



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MAC BEAT

OPERATING SYSTEM

No Virtualization for Vista Home—Again

Microsoft still won't change OS license

When Microsoft released its new Vista operating system, sharp-eyed customers noticed that Vista's End User Licensing Agreement (EULA) stated that Microsoft wouldn't let users run the Home and Home Premium editions—the entry-level versions—of the OS under virtualization on the Mac. So Mac users who wanted to run the latest version of Windows alongside OS X on their Intel-based Macs—using Parallels Desktop or VMWare Fusion, for example—would need to purchase the more expensive Vista Business, Ultimate, or Enterprise in order to comply with the licensing agreement (Boot Camp is not considered virtualization, and is exempt from those conditions).

During a meeting with *Macworld* in June, Microsoft said that it had changed its decision and, due to customer feedback, it would change the EULA to allow virtualization of the low-end Vista prod-

ucts as well. "We are always listening to the community with regards to licensing," said Scott Woodgate, director of the Windows Vista team, at the time. "Security is still a concern, but we are enabling the customer to make that choice."

But just before making a public announcement, the company reverted to its original, more-restrictive position. A statement from the company read: "Microsoft has reassessed the Windows virtualization policy and decided that we will maintain the original policy announced last fall."

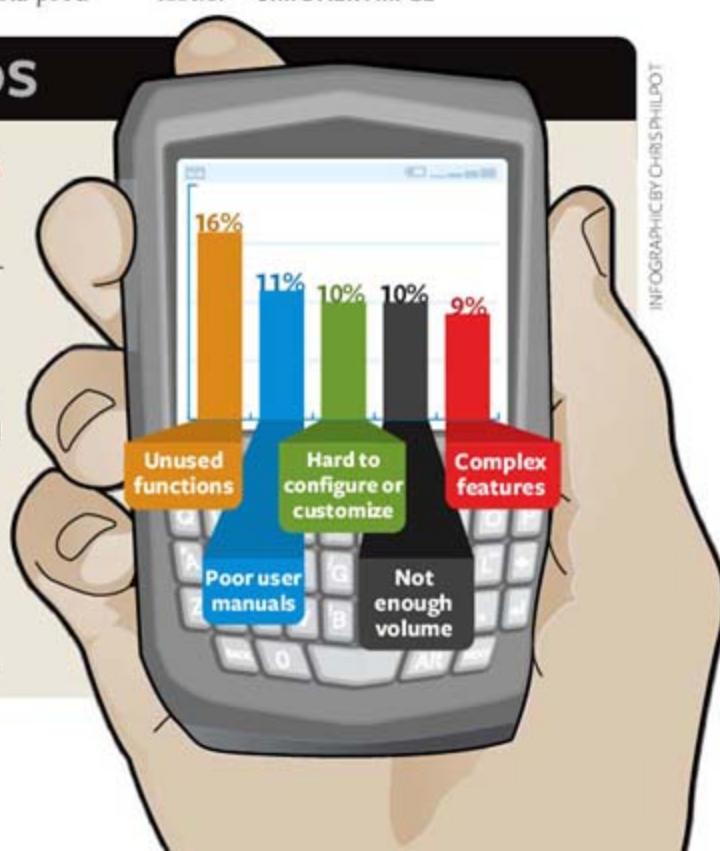
The end result is that some Mac users still need to spend more than \$300 for a new copy of Vista if they want to run it legally under virtualization—a decision that Ben Rudolph, Parallels' director of corporate communications, said left his company "obviously disappointed." He added that "we will continue to advocate on behalf of our users, and we'll continue to work with Microsoft on the issue." —JIM DALRYMPLE



TECH TRENDS

Cell Phone Frustrations

The strongly positive reaction to the simply designed iPhone appears to stem from a big frustration of mobile phone users: handsets are just too complicated. A new survey of 15,000 mobile phone users in 37 countries finds that although the cell phone experience varies from country to country, the one thing callers around the world agree on is that the handsets are packed with too many features, making them difficult to use. —MARYANN JONES THOMPSON



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photo: razor-la.com



SCAN

Fujitsu ScanSnap.™ It's a snap. Why push paper when you can push a button? Free yourself with the new ScanSnap S500M scanner, the most powerful solution in its class for turning paper into electronic documents.

Since the Fujitsu ScanSnap comes preloaded with Adobe® Acrobat® 7.0 Standard (a \$299 value), one touch of a button is all it takes to turn double-sided documents into searchable PDFs, ideal for storing, protecting and sharing documents. And you'll be doing it fast. Native support for the new Intel® chipset delivers a blazing 18 pages per minute scan speed. All this and it's small enough to fit where your inbox used to be. So get rid of paper and get back your cool with the Fujitsu ScanSnap. It's a snap! Visit us at <http://us.fujitsu.com/scanners/96C5> for more information.

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GAMES

GameTap Brings Free Games to the Mac

Service offers classic arcade and console titles

Looking for a free, legal way to play classic arcade and console games on your Mac? Then head over to GameTap (www.gametap.com), which recently gave Intel-based Mac users the ability to play dozens of

games on demand—classics such as Robotron 2084, Joust, and Space Invaders, and Neo-Geo games such as King of Fighters '95 and Robo Army.

Mac users can access games after signing up for a free account and downloading the Lite Player, and the game lineup changes periodically. GameTap is also expanding its deluxe, pay-to-play service, which is currently available to PC users, to users of Intel Macs.

GameTap is the same service that earlier this year brought Myst Online: Uru Live to the Mac (see macworld.com/2944). GameTap uses Cider, the translation layer technology from TransGaming that enables games made for PCs to run on Intel-based Macs. —PETER COHEN



GAME BUZZ



Age of Empires III: The WarChiefs

MacSoft Games has released a Mac conver-

sion of Age of Empires III: The WarChiefs. The \$30 WarChiefs is the first expansion pack developed for Age of Empires III, a real-time strategy game in which players follow Morgan Black and his descendants as they migrate from Europe to the New World, and westward across the young United States. It adds new capabilities such as playable Native American civilizations. The pack also incorporates a new single-player campaign, with 15 new missions, and adds new random maps in locations not featured in the original game, more statistics tracking, and new ways to play (www.macsoftgames.com). —PETER COHEN

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Wireless FM Transmitter + RF Remote Control for iPod

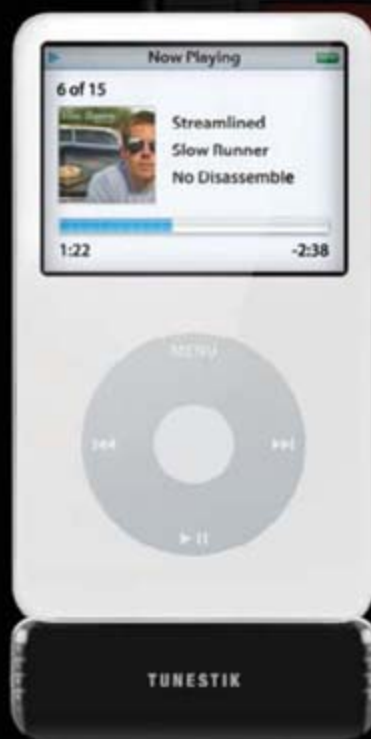
Use TuneStik to play and control your iPod music in the car, at home – anywhere there's an FM radio. Unlike other iPod FM transmitters, TuneStik includes an RF remote for wireless iPod control. TuneStik also features a pass-through dock connector which allows you to use TuneStik and its remote with your existing iPod accessories! TuneStik – where wireless music meets wireless control.



Includes steering-wheel remote cradle
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SOFTWARE

Parallels Previews Server for Mac

Product runs many server OS versions

Parallels recently upgraded its software for letting Intel-based Macs run Windows and other operating systems, but during Apple's Worldwide Developers Conference, the virtualization specialist demonstrated an early build of a new product called Parallels Server. The server version will allow IT managers to run multiple server operating systems on one Apple Xserve.

"This is all about maximizing resources and every dollar you put into your IT infrastructure," says Ben Rudolph, director of corporate communications at Parallels.

Parallels showed off the product on an Xserve running SUSE Linux Enterprise, Windows 2003, Windows XP, Solaris 10, and FreeBSD 5 virtual machines. One of the questions that came up during the

demo was why it didn't show Mac OS X Server running as a virtual machine.

"Would it be technically possible? Yes," says Rudolph. "Will Apple permit it right now? No. Apple has been a great partner to us, and we don't

want to jeopardize that relationship. We are not going to take that good will and immediately turn around and spit in their eye."

The Parallels team said that the virtual machines running on that Xserve would respect things such as Directory Services and Groups set up in Mac OS X, making it easier for IT managers to configure multiple operating systems.

Parallels is also going to release a software development kit that will let anyone build server tools for Parallels Server. No release date has been announced.

—JIM DALRYMPLE



DIALOG BOX

"We are not in a visual age . . . and it's producing badly dressed people. They have no interest in mass or line or things like that."

Painter David Hockney, deploring the iPod for contributing to a decline in visual awareness

"There are points on the spectrum between boring and edgy. In politics, the guy who wins isn't boring or edgy. We are more centrist. Apple is trying to appeal to the edgy."

Microsoft CEO Steve Ballmer, in an interview with *SmartMoney* magazine



"Apple illustrates the importance of designing new products around the needs of the user, not the demands of the technology. Apple has consistently combined clever technology with simplicity and ease of use."

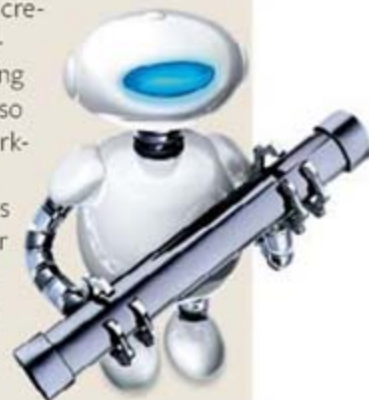
From *The Economist's* June 9, 2007, cover story, "Apple and the Art of Innovation"

CREATIVE NOTES

Photoshop Action Pack 3.5 released

Macworld contributor Ben Long has released version 3.5 of his popular Photoshop Action Pack, a collection of 86 Automator actions for scripting Adobe Photoshop. The update adds Photoshop CS3 support, a new Auto Color action, improved watermarking functionality, and better Camera Raw support; it also includes a number of bug fixes. Action Pack is a set of building blocks for the automated processing of images, and it includes access to most of Photoshop's core functions and filters. With it, you can use Automator to create complex workflows for processing images. You can also broaden these workflows to include other applications and functions. For example, a workflow could resize and sharpen a group of images based on their

aspect ratio, upload them to a server via FTP, and then burn a CD or DVD as a backup. Long includes a comprehensive 71-page manual that details all of the actions and their options. He also includes an easy-to-follow beginner's tutorial on using Automator, along with some sample workflows to get you started. Photoshop Action Pack is a free download at Long's Complete Digital Photography site (www.completedigitalphotography.com). Most of the actions work with all three Creative Suite versions of Photoshop, so you can use them even if you're not running the latest and greatest CS version.



PRODUCT WATCH

SOFTWARE

Captain FTP 5.0, from Xnet Communications (captainftp.xdsnet.de): FTP client adds support for WebDav, file ID in Get Info, and Growl Notification, and now includes a preview drawer (\$25; upgrade, contact Xnet for pricing).

Cocktail 3.8, from Maintain (www.maintain.se): General-purpose Mac OS X utility features improvements to the interface and to the log- and cache-clearing options (\$15).

GoLive 9, from Adobe (www.adobe.com): Web page editor adds InDesign-like character and paragraph styles, a visual CSS layout window, and Universal compatibility with Intel-based Macs (\$399; upgrade, \$169).

TimeCache 7.0, from PandaWare (www.pandaware.com): Time and expense billing program runs natively on Intel-based Macs and adds an analysis chart feature for producing pie and bar-graph charts (\$50; upgrade, contact PandaWare for pricing).

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Hot Stuff

What we're raving about this month



Skitch

Creating and distributing an image in a hurry is what plasq's Skitch (currently a public beta) is all about. You use Skitch to grab an image of something on your screen or within view of your iSight camera, and then modify it with text, arrows, drawings, and other basic sketch tools. Once you've finished marking up your image, you can drag its Drag Me tab into an iChat window to add it to your chat, press a hot key to e-mail it, or click on the Web-post button and watch as Skitch uploads your image to your blog or Flickr account. I've used Skitch to send quick annotations of a Google Earth image to a friend and even to troubleshoot someone's Mac problems by highlighting the items he should click on. If you need to sketch on top of an image, Skitch does the job with aplomb (plasq.com).—JASON SNELL

i-volution Shell

What do you buy the laptop user who has (nearly) everything? It's tough to go wrong with luxurious protection. For people looking to splurge, Vaja's i-volution Shell is the Jaguar of laptop sleeves. Starting at \$392 (without handles) or \$464 (with handles), the Shell is a one-of-a-kind hard-shell case, handmade to your specifications from high-end, full-grain Argentine leather. You can choose from among ten colors for the body of the case, and from 40 accent colors; among other options, you can personalize your case with text for \$10 or graphics for \$30 (www.vajacases.com).—DAN FRANKS



Drobo

I don't back up my data as well as I should. If you also have the good intention—but lack the follow-through—to institute a backup plan, check out Drobo. The maker of this \$499 four-bay drive enclosure, Data Robotics, calls it a storage robot, which makes me both chuckle and grimace, but whatever the company's calling it, it's interesting. Drobo requires no



expertise beyond knowing how to plug it in. Two sets of lights on the front tell you how full Drobo is and how healthy each drive is. You can pop any SATA drive into it (or pluck any one out) at any time, and Drobo takes care of backing up your data. It's

simple (www.drobo.com).—ERIC SUESZ



ShuffleSaver 1.1

I usually have my OS X screen saver set to cycle through my favorite iPhoto images. But as much as I love those pictures, I sometimes grow weary of seeing the same ones over and over. For inspiration, I turn to Eidac's free ShuffleSaver 1.1. This screen saver lets you take advantage of the photographic gold mine that is Flickr. You can set ShuffleSaver to show photos from a specific Flickr account or images with specific tags, or you can embrace randomness and have the screen saver display the newest or most interesting photos uploaded to Flickr. You can choose a transition, and even define hot keys that you can use to download images or skip ahead while the screen saver is playing. An offline mode lets ShuffleSaver display images even when you're not online (macworld.com/2909).—KELLY TURNER

i-volution PHOTOGRAPH BY PETER BELANGER

Xacti VPC-CG65


Sleek, sexy, small, and light, Sanyo's Xacti VPC-CG65 standard-definition camcorder fits in the palm of your hand and slips easily into your pocket. This nifty device shoots excellent video and photos with its 6.37-megapixel CCD—even in low-light conditions. And best of all, you won't need to buy tapes. The VPC-CG65 stores its files on inexpensive SD or SDHC memory cards. Plus, it was the only tapeless model we tested that worked well with iMovie. At \$400, this camcorder isn't cheap, but its quality and convenience shouldn't disappoint (macworld.com/2908).—BRIAN CHEN





Jax


real life meets digital life

"Got an iPod®? Use iTunes®?" Then Jax has something for you! Load YouTube® or any QuickTime videos into iTunes and watch them on your video iPod, AppleTV® or iPhone®... Use Music Map to find a ton of cool info about your favorite artists and bands... Jax can find missing album art and even let you choose from international album covers or drag and drop your own picture to create custom album covers. Jax also adds a bunch of new visualizers. Want to find and add the lyrics to your favorite songs? Jax makes that easy too!

 Add YouTube, QuickTime and Google Videos to your iPod or iPhone

 Get song lyrics, visualizers and album art for your music collection

 Research your favorite bands and artists with Music Map

 Download directions, movie listings, weather or emails to your iPod



"I love Music Map!
I can search for my favorite bands and find all kinds of info about them and similar bands and their connections"



"The visualizers and song lyrics are really cool and great for parties!"

"I love importing YouTube and QuickTime videos into my video iPod, AppleTV or iPhone to show my friends."

"Jax allows me to browse a variety of album art and then change what is displayed."

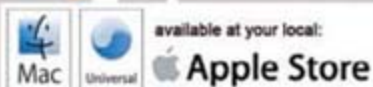


This is just the beginning... Jax is upgradeable with its plug and play feature set. Dozens of new Jaks are on the way and most will be available as free downloads right from our website.

Free Demo

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Reviews



Swift Performance Final Cut Pro 6 looks just like prior versions at first glance, but significant changes under the hood speed up your work. The Open Format Timeline and the ProRes 422 codec mean much less idling while waiting for renders.

Making the Cut

Apple's Final Cut Pro 6 offers powerful new tricks **BY MIKE CURTIS**

Over the years, Final Cut Pro (FCP) has evolved into a workhorse application that handles everything from basic digital video editing to uncompressed HD video processing. FCP 6.0.1 is an improvement on an already powerful, flexible, affordable, and scalable editing program for a wide range of professional and semi-professional users.

FCP 6 is part of Final Cut Studio 2.0.1, and it can no longer be purchased separately from the suite. It serves as a

hub for the other Studio programs: Motion 3.0.1 (page 44), Soundtrack Pro 2.0.1 (page 42), Compressor 3.0.1 (macworld.com/2912), DVD Studio Pro 4.2, and the new Color 1.0.1 (page 36). At first glance, FCP 6 looks identical to the previous version (macworld.com/0695), but if you look below the surface, you'll find significant new features—such as the Open Format Timeline, the ProRes 422 codec, and the SmoothCam plug-in—that can substantially speed up and

enhance your workflow and help you get stuff done. Overall, the Final Cut Studio 2 package offers many more features and capabilities than previous versions of the suite.

Open Format Timeline

The most notable new feature in FCP 6 is the Open Format Timeline. You can now mix supported frame sizes, frame rates, and codecs from different sources in a single sequence. FCP automatically handles frame-size and frame-rate con-

Find It Online Please see our Web site at the addresses below to read longer versions of the Final Cut Pro 6, Color 1.0, Soundtrack Pro 2, and Motion 3 reviews. You can read our evaluation of Compressor 3 at macworld.com/2912.



Final Cut Pro 6, page 34
macworld.com/2903



Color 1.0, page 36
macworld.com/2911



Soundtrack Pro 2, page 42
macworld.com/2913



Motion 3, page 44
macworld.com/2910



version in real time. The video quality isn't perfectly smooth, but you can use the suite's new version of Compressor to improve troublesome shots (though the process may take multiple iterations). The Open Format Timeline eliminates the rigid specificity of previous versions, and it saves a lot of time.

SmoothCam, the new stabilization plug-in, can stabilize shots, as well as smooth jerky camera motion. But this feature, too, has some rough edges.

ProRes 422 Codec

Apple's new ProRes codec comes in two flavors: a 10-bit-per-channel, 145-Mbps version called ProRes 422, and a 10-bit-per-channel, 220-Mbps version called ProRes (HQ). There are a number of advantages:

Full Raster The codec resolution is the actual size of the format—so the 1,920-by-1,080 format equals 1,920 by 1,080 pixels, instead of 1,440 or 1,280 by 1,080 (as with other video formats).

10-Bit Codec You get up to 1,024 shades of gray and 10 bits of color depth for smoother rendered results of color correction and other image manipulation.

High Quality Image quality is well preserved after you apply effects, and there are few compression artifacts, even after multiple generations of compression.

Greater Speed Because the codec's structure is less complicated than that of other video formats, it's faster at rendering color corrections, titles, and cross-dissolves.

Low Data Rate This codec's data rate is relatively low—145 or 220 Mbps—so it will play back nicely from a single hard drive.

Suite Integration

FCP's tight integration with the other applications in the suite is a major time-saver. Motion projects update in real time in FCP, and you can synchronize audio changes between Soundtrack Pro and FCP. Also, you can update Color projects to include changes from FCP. And you can export directly to Compressor without having to first render a separate file.

Better Than Ever

Apple has also made a slew of improvements and fixes to existing features: FCP 6 is better, easier to use, and faster than previous versions. For example, the Media Manager (which manages the conversion of media files to other formats) and Cinema Tools (which works with converted film material) have been enhanced. In addition, Easy Setups, which define the kind of video format

you're preparing to capture or edit, have been simplified. Surround-sound (5.1 audio) playback support has been added, but the feature requires pricey additional audio gear.

Version 6.0.1 supports the increasingly popular AVCHD format, but not natively. Therefore, you must transcode to either Apple Intermediate Codec or ProRes 422 via the Log And Transfer interface, and that output can take up as much as ten times more space than native AVCHD files. The good news is that once you transcode your video into these formats, editing and rendering are much faster than in native HDV.

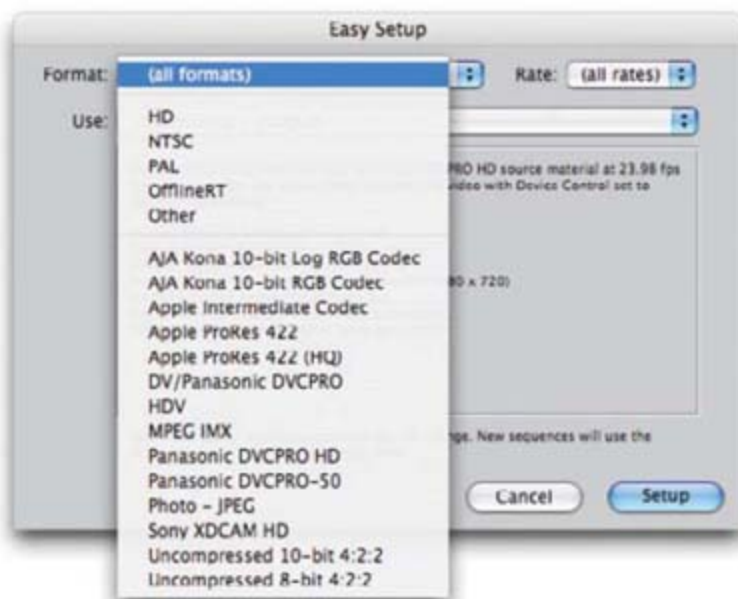
Reliable Performance

FCP 6 feels solid and stable: in several days of testing on five machines, I never had a crash or lockup. My biggest issues were the time it took to install the full nine-DVD, 55GB suite, and the room I had to make on a boot drive on my older G5s (and my laptop) to do so.

Apple gets points for including beefy printed documentation for FCP 6, as well as a fully searchable PDF manual.

Macworld's Buying Advice

Final Cut Pro 6.0.1 is a solid upgrade featuring greater ease of use and enhanced workflow flexibility. For users of previous



Improved Flexibility In Final Cut Pro 6, you can work with video at any supported frame size and rate, and the software will automatically handle the rest of the details for you—with real-time playback.

versions, the decision to upgrade will be a no-brainer, as the new ProRes and Open Format Timeline features alone are worth the price of admission. And when you factor in the new features of the suite's other programs, Final Cut Studio 2.0.1 is an excellent value. For Mac users considering buying the suite for the first time, Final Cut Studio 2's speed, flexibility, price, and capabilities put it in a class by itself.

Mike Curtis runs HD for Indies (www.hdforindies.com), a consultancy and Web site focused on HD video production, with an emphasis on HD cameras and workflow, as well as postproduction hardware and software.

Final Cut Pro 6.0.1



PROS: Flexible Open Format Timeline; new ProRes 422 codec; effective SmoothCam feature; surround-sound support; printed manuals; good price; AVCHD codec support.

CONS: Open Format Timeline and SmoothCam have some rough edges; surround-sound support requires extra hardware; huge, time-consuming installation.

OS X COMPATIBILITY: 10.4 (Tiger)

PROCESSOR COMPATIBILITY: Universal

PRICE: \$1,299; upgrade, \$499; upgrade from Final Cut Pro or Production Suite, \$699

COMPANY: Apple, www.apple.com

Color 1.0

Apple unleashes Final Cut Studio grading and finishing tool **BY GARY ADCOCK**



Controlling Color Shown in single-display mode, the Secondaries tab (top center) offers Bézier masking tools and HSL correction sliders for fine-tuning a selection. Below that tab is a preview image with Parade scopes and the 3-D vectorscope. Numeric-input color-selection tools are on the right side of the screen.

Color 1.0.1, a new component introduced in Final Cut Studio 2.0.1, brings professional color correcting and finishing to the suite. Far more powerful than the basic color-correction tools found in the previous version of Final Cut Pro, Color introduces Bézier-based masking and color-selection tools, single and multipoint optical tracking, advanced effects, and creative color-correction capabilities.

The program steps you through the grading process, which makes possible everything from a simple gamma correction of dark video to the manipulated, desaturated, grainy hues popular in sci-fi and horror movies.

Getting Started

Color is a highly specialized professional application that requires time and effort to understand and master. Of all the components in the Final

Cut Studio suite, Color has the most stringent hardware requirements. Apple recommends at least a 2.5GHz Power Mac G5 Quad with a 1,680-by-1,050-pixel or dual-display setup, as well as specific graphics cards for real-time rendering and playback of the larger frame sizes in uncompressed HD and 2K formats (the latter format is 35mm film scanned for use in the DPX format at a resolution of 2,048 by 1,556 pixels). Color users working in standard definition (SD) or compressed HD format can get by with less hardware, but certain graphics cards limit on-screen previews to an 8-bit color depth and do not accelerate rendering as much as the recommended ATI X1900XT card does. And note that there is no preview playback in Desktop Cinema mode or over a FireWire connection.

Color lacks the friendly, Apple-style look-and-feel of the rest of Final Cut

Studio. But the interface's neutral gray color minimizes the viewer's color bias; reduces eyestrain during long periods of work; and allows for cleaner, more

Color 1.0.1



PROS: Send To Color command simplifies workflow; program usable outside of Final Cut Studio; can export to uncompressed or ProRes files from compressed originals.

CONS: Un-Mac-like interface; improper aspect-ratio conversion from compressed originals; lack of monitoring over FireWire; stringent hardware requirements; numerous issues listed in Web-only release notes.

OS X COMPATIBILITY: 10.4 (Tiger)

PROCESSOR COMPATIBILITY: Universal

PRICE: \$1,299 (new to Final Cut Studio); upgrade, \$499; upgrade from Final Cut Pro or Production Suite, \$699

COMPANY: Apple, www.apple.com



zCover TypeOn APKNAU / APKNBU Preprinted series for Apple Notebook Keyboard

Material: Silicone Rubber

Color: zPrinted Ice Clear, Ice Blue, Ice Green, Ice Pink, Ice Purple, Ice Yellow, Black, Glow-in-Dark-White

Compatibility: APKNBU for new Apple MacBook
APKNAU for Apple MacBook Pro, Apple iBook & Apple PowerBook

zCover TypeOn pre-printed Language Keyboard protector is unique in having pre-printed letters on the cover, the layout of which perfectly coincides with that of the standard Apple Notebook US English Keyboard. With the protector snugly fitted to your keyboard, you won't be squinting again struggling to find the right key!



zCover TypeOn APKNAS/ APKNBS Preprinted Program Short Cut Key for Apple Notebook Keyboard

Material: Silicone Rubber

Programs: Apple Final Cut Pro, Digidesign Pro Tools

Adobe After Effects, Adobe Photoshop, Adobe Illustrator, Adobe InDesign, Adobe Flash, Adobe Dreamweaver

Compatibility: APKNBU for new Apple MacBook
APKNAU for Apple MacBook Pro, Apple iBook & Apple PowerBook

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zCover TypeOn APKD for Apple Desktop Keyboard

Material: Silicone Rubber

Compatibility: for Apple Desktop Keyboard & Apple Wireless Keyboard
(* Not compatible with previous Apple Keyboard.)



zCover zPrinting Program Shortcut key

Material: Silicone Rubber

Programs: Apple Final Cut Pro, Adobe Photoshop, Adobe Illustrator, Adobe InDesign, Adobe Dreamweaver, Adobe Flash, Adobe After Effects, Digidesign Pro Tools, Adobe Premiere Pro, Adobe Premiere 6.5, Autodesk AutoCAD, Autodesk Maya, Cakewalk Sonar, Avid Xpress, Sony Vegas, Steinberg Cubase/Nuendo

Compatibility: Short Cut Program Keyboard skin for Apple Desktop Keyboard & Apple Wireless Keyboard
(* Not compatible with previous Apple Keyboard.)



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Extraordinary Durability
Functionality with Elegance
Technology with Inspiration



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Show Style, Enjoy Functionality

consistent corrections. Color can also be used as a stand-alone application outside of Final Cut Studio.

Input Guidelines

The program handles native HDV and MPEG-based video formats directly via the Send To Color command. These files open with your project's attributes in Color's timeline. However, still images, elements from LiveType or Motion, titles, still frames, and generators created in Final Cut Pro are not accessible within Color. And while Final Cut Pro's Open Format Timeline allows for a mix of frame sizes and rates, Color does not handle mixed frame rates at all.

Getting Around

Used as a stand-alone application, Color allows you to import industry-standard EDLs (edit decision lists) from other applications, and XML data files derived from older versions of Final Cut Pro, thereby increasing

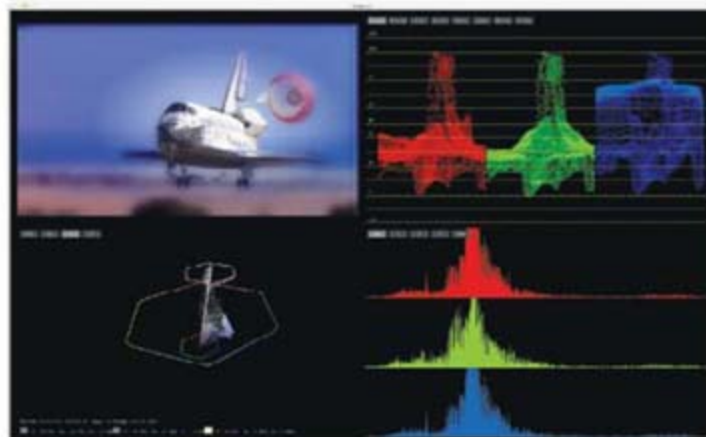
Color's ability to work with programs outside of the Final Cut Studio 2 suite.

Color is very complex, but as you get used to the software, its complexity starts to make sense. The program has eight context-sensitive points of entry called *rooms*, which are organized as tabs at the top of the screen. Each room allows you to complete discrete color operations. Setup is the first room; it's followed by Primary In, Secondaries, Color FX, Primary Out, Geometry, Still Store, and Render Queue.

The Primary In tab shows your project in the timeline just as it was in Final Cut Pro. The HSL (hue, saturation, and luminance) slider controls for adjusting shadows, midtones, and highlights are at the top of the room, while the

red, green, blue, and luminance curves controls below let you selectively adjust the overall image. The Auto Balance button in this room provides a superb starting image correction for a wide variety of file types.

Color directly incorporates some settings from Final Cut Pro's Color Corrector 3-Way filters (when there is a single filter on a clip). However, the



Color Node Tree In the Dual display mode, Color maintains all the monitoring tools on the secondary display. Clockwise from top left are Preview, RGB Parade, RGB Histogram, and the new 3-D Color Space Scope.

SHUTTLE PHOTOGRAPH COURTESY OF NASA

Your Mac Pro's Dream Date



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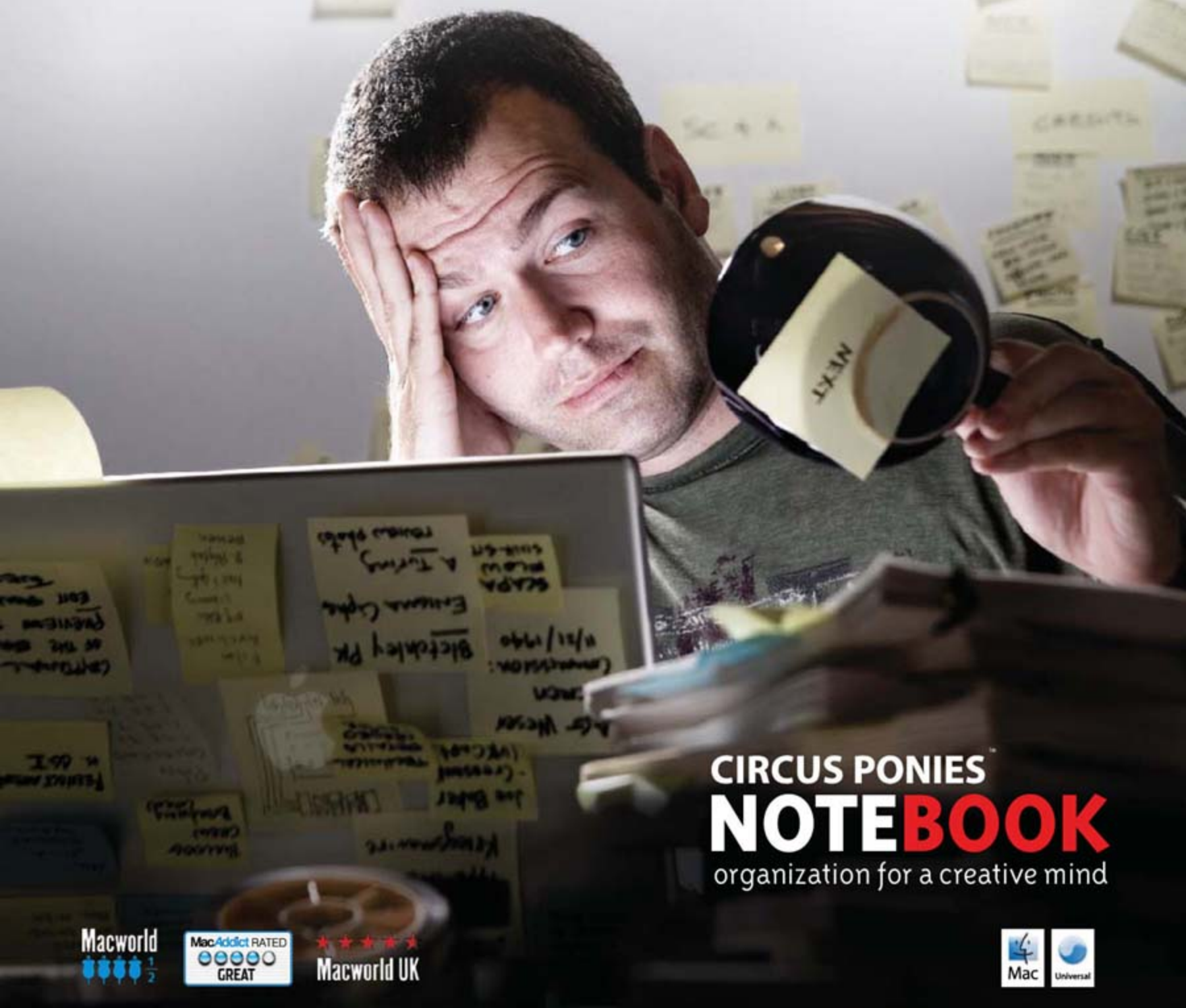
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colors in such conversions may not be a perfect match, because Color uses the RGB color space and Final Cut Pro uses the video-oriented YUV color space for its renders.

After you're satisfied with the basic correction, you can fine-tune it in the Secondaries room, using either selections derived from the Bézier tools or user-selectable color ranges.

The Color FX room lets users apply special effects and transformations, and facilitates the use of third-party filters (currently, only the Nattress Advanced plug-ins are available). Color ships with 50 adjustable preset effects, many accessible via the Color FX Bin. These effects are just starting points for specialty looks.

In the Geometry room, you can create Bézier masks and generate tracking points to allow the mask to travel over time. You can also zoom in on, reposition, and rotate the frame, as well as scale and resize images throughout a project;

this lets you output to other resolutions as part of the final render process.


Performing that final render is where you can get sidetracked if you're not using the preferred Return To FCP export function. By default, projects using the Send To Color command are returned to Final Cut Pro just the same as they were sent. With compressed material, you have the ability to render projects out as high-quality uncompressed, in ProRes, or in AJA Video's 10-bit RGB, the only third-party codec available. However, that content will maintain its original aspect ratio regardless of the output codec you choose.

Apple's online documentation lists a number of known issues with this release of Color, including speed changes or mixed frame rates from Final Cut Pro, a recommended limit of 200 edit points for sequences, default Broadcast Safe limits that need to be set manually for proper output, lack of support for anamorphic SD content, and a number

of performance guidelines. A complete list is available at macworld.com/2943.

Color is remarkably fast and extremely efficient, and it has powerful capabilities for handling a variety of tasks, from making the simplest correction to a project, to creating custom effects or complicated looks.

Macworld's Buying Advice

Color 1.0.1 is a solid, best-in-class addition to the Final Cut Studio 2 suite—it's one of the most powerful color-correction tools available in video production. It lets you control your vision from start to finish. However, its complex, unfamiliar interface takes some getting used to. And its lack of support for third-party codecs will likely deter some video pros. 

Gary Adcock is a Chicago-based HD and film production consultant, and the technical chairman for HD Postproduction for the National Association of Broadcasters.

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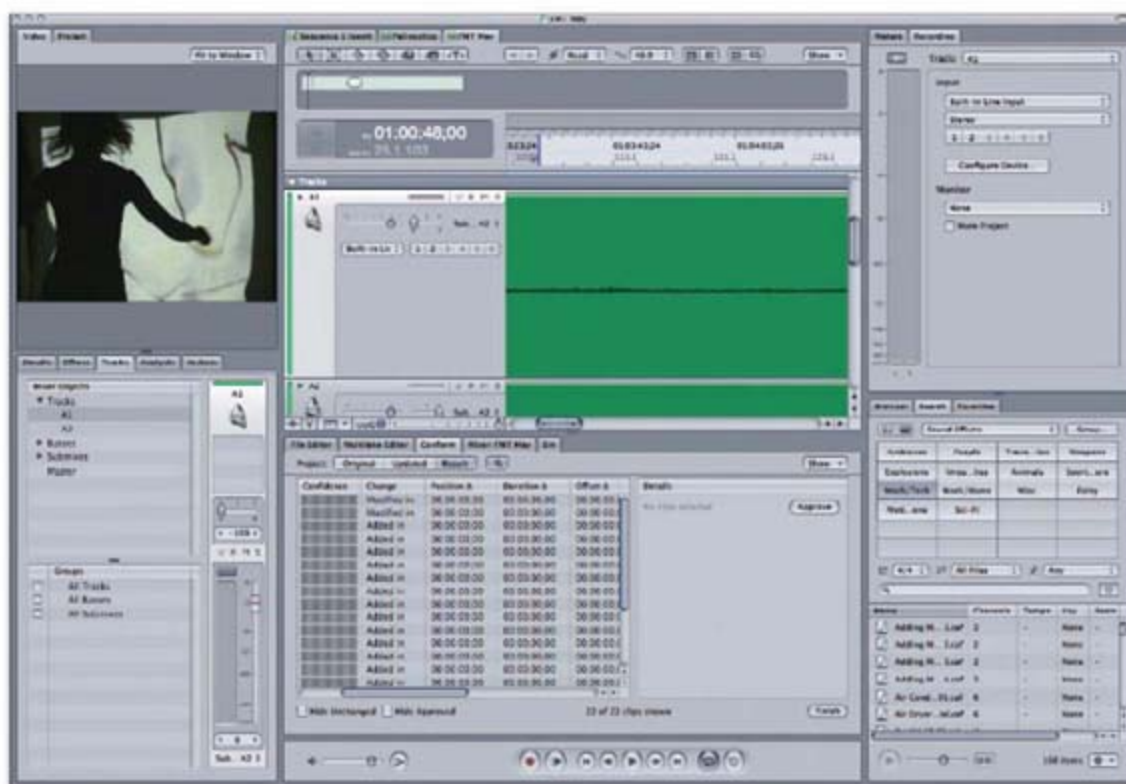
Soundtrack Pro 2

Improved editing and new features help you sync audio with video **BY PETER KIRN**

Sound editors and video editors—the humans, not the software—often seem to live in different worlds. The latest version of Apple's Soundtrack Pro (2.0.1), part of Final Cut Studio 2.0.1, continues to bridge the gap between video- and audio-editing workflows.

Soundtrack Pro 2 addresses a number of its predecessor's primary shortcomings. You can now move automation envelopes with clips, nudge audio by frames, and import and export OMF (Open Media Framework) and AAF (Advanced Authoring Format) files. Soundtrack Pro finally employs Final Cut Pro's JKL keyboard shortcuts by default. If you know AppleScript, custom Send To and After Export actions can enhance file-import and -export automation, but Soundtrack Pro does not have any new batch-processing tools or Automator actions.

The most promising addition is the Conform feature, which synchronizes changes made to a Final Cut Pro project with an associated Soundtrack Pro project. Most edits work automatically, without requiring intervention, and the



Audio and Video Edits Soundtrack Pro's integrated interface now accommodates a broader set of editing functions. For instance, from the main window (pictured here), you can use the Conform tab (bottom center) to reconcile sound edits with video edits, without leaving your multiple-track project (top center).

integrated interface lets you see and hear changes immediately.

The new Lift And Stamp tool allows you to copy and paste sonic qualities, much as you'd copy and paste formatting in a word processor. This is ideal when you need to bring consistency to sound recorded via different mikes and in different locations. Also helpful in postproduction is the newly enhanced multiple-take recording, which makes it easier to mix and match pieces of different takes quickly while keeping them synced to video.

Mixing surround sound in this version is a pleasure, thanks to a new surround-panner interface that provides extensive visual feedback as you work. Apple has also included surround loops and effects to get you started.

Subtle limitations of the interface mean that some heavy-duty multiple-track work will likely require another tool. For instance, Soundtrack limits vertical track scaling to four global zoom presets; this can make editing more than three or four tracks clum-

sier than it is in a tool like Logic Pro. Audio editors and composers may want some of Soundtrack Pro's unique Final Cut Pro integration, and it's unfortunate that Apple forces them to buy the entire Final Cut Studio package when they're unlikely to need the other applications.

Macworld's Buying Advice

Soundtrack Pro 2.0.1 has essential editing and file-import and -export capabilities, as well as invaluable features such as the Lift And Stamp and Conform tools. No other program implements these combined features so elegantly, and Soundtrack Pro 2 is the only program with this level of Final Cut Pro integration. If Apple irons out some of the interface and performance wrinkles in an update and publishes some AppleScript tutorials, it will make its Final Cut Studio customers very happy. **X**

Peter Kirn is a media artist and educator based in New York. He runs the online music tech blog and community createdigitalmusic.com.

Soundtrack Pro 2.0.1



PROS: Vastly improved multichannel editing and file import and export; Conform feature makes Final Cut integration more elegant; efficient surround panning; improved recording; convenient Lift And Stamp tool.

CONS: Automation requires AppleScript; rigid and sometimes sluggish interface; available only as part of the Final Cut Studio suite.

OS X COMPATIBILITY: 10.4 (Tiger)

PROCESSOR COMPATIBILITY: Universal

PRICE: \$1,299; upgrade, \$499; upgrade from Final Cut Pro or Production Suite, \$699

COMPANY: Apple, www.apple.com

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Motion 3

3-D, paint, and motion-tracking add depth to graphics tool **BY PETER KIRN**

Motion, Apple's motion-graphics and video-processing software, has always stood apart—not so much for *what* it does, but for the *way* it does it. Motion's workflow is built around real-time adjustment and experimentation. With Motion 3.0.1, Apple has focused on the major capabilities that previous versions lacked: motion tracking and stabilization; painting tools; and a true 3-D graphical environment, for more speed and easy, improvisational control. Motion may not become your only motion-graphics program, but it could easily become your favorite tool for quickly creating visuals.

Editing keyframes in Motion is made easier by new Pen and Box tools for modifying animation curves. New motion-tracking, Match Move behavior, and stabilization tools help Motion 3 complement your existing Final Cut Pro workflow. These tools can stabilize clips or match an animation to the movement of an object in your video. Expanded retiming features provide additional control over dynamic speed changes, and new Motion Blend and Optical Flow frame blending let you smooth out the results.

The Paint tool has been transformed into a powerful vector-based art tool in Motion 3. Brush styles range from organic models that mimic real brushstrokes to gorgeous light and particle effects. You can draw right into your project in real time, though complex brush styles and compositions can be system-intensive. Combined with behaviors, the Paint tool excels at painting effects quickly, though the lack of vector-path import and roto-scoping tools means it won't replace other tools.

A major addition to Motion 3 is support for 3-D

compositing and effects. Extensive user-interface feedback helps keep you oriented as you adjust camera views and position objects. As with other areas of the program, Motion allows you to perform these edits in real time, without rendering.

Motion is elegant and fast, but it's not the right tool for every job. In almost all aspects of the program, increased complexity can decrease performance. You'll need a last-generation Power Mac G5 or an Intel-based machine with a dedicated graphics card and lots of RAM. Motion also doesn't provide some of the sophisticated scripting and fine-tuned editing found in After Effects, or the high-end compositing workflows of tools such as Combustion (★★★★; macworld.com/2945) and Shake (★★★★; macworld.com/0932).

Macworld's Buying Advice

Motion 3.0.1, with its elegant, real-time interface, has always been promising. By adding some new dimensions to the visuals Motion can produce, Apple has vastly increased the value of its motion-graphics tool. It's a comple-

Motion 3.0.1



PROS: Motion stabilization and Match Move features complement Final Cut Pro; makes basic 3-D more accessible; gorgeous vector-based paint tools; real-time workflow makes experimentation easier.

CONS: No import or export of vector paths; some processes still too intensive for real-time operation without high-end hardware.

OS X COMPATIBILITY: 10.4 (Tiger)

PROCESSOR COMPATIBILITY: Universal

PRICE: \$1,299; upgrade, \$499; upgrade from Final Cut Pro or Production Suite, \$699

COMPANY: Apple, www.apple.com

ment to Final Cut Pro for video processing, and it's finally looking like a serious motion-graphics contender in its own right. If you're new to creating motion graphics, Motion makes otherwise difficult workflows unusually easy, as long as you have the hardware muscle to handle them. **X**

Peter Kirn is a media artist and educator based in New York. He runs the online visual tech site createdigitalmotion.com.



Paint Tools Motion's expanded vector-based paint tools can create organic paint effects and slick eye candy, and that art can be transformed in 3-D space via Motion's new 3-D tools. Motion gives you multiple ways of manipulating what's on screen: the timeline and keyframe editor, the heads-up displays, and the Inspector.

A man in a dark suit, white shirt, and patterned tie stands against a vibrant red background. He is holding a small, silver, rectangular portable storage device in his left hand. The device has the word "Maxtor" written on it in a stylized font. In the top right corner, a portion of a disco ball is visible, reflecting light.

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The MacBook Pro's Progress

Apple unveils advances in graphics and displays **BY HENRY NORR**

For more than a year, Intel has been touting a new mobile platform code-named Santa Rosa. Combining the latest Core 2 Duo processors with a package of new support chips, the platform was supposed to deliver the biggest advance in notebook computing in years.

Now, Apple's first Santa Rosa-based laptops—the new 15- and 17-inch MacBook Pros—have arrived, yet the improvements turn out to be fairly modest. In fact, the most important refinements in the latest models come not from the new chip set, but from separate advances in graphics processing and the display.

Specifically, these MacBook Pros feature a brand-new Nvidia graphics chip, the GeForce 8600M GT, in place of the aging ATI Mobility Radeon X1600. In the entry-level MacBook Pro, the chip comes with 128MB of dedicated graphics memory; the other two models have 256MB.

In the display arena, the 15-inch MacBook Pros are the industry's first notebooks with screens backlit by light-emitting diodes (LEDs) rather



than fluorescent bulbs. LEDs offer several clear advantages: they require less power; they reach full brightness instantly; they should maintain their brightness throughout the life of the notebook; and they don't contain mercury gas, a known neurotoxin that could escape into the environment when the notebook is disposed of.

Because 17-inch screens with LED backlighting aren't yet available, the flagship MacBook Pro still has traditional backlighting. For an extra \$100, however, you can now order the 17-inch model with a resolution of 1,920 by 1,200 pixels, instead of the standard 1,680 by 1,050 pixels. If you're working with HD video, you'll appreciate the higher resolution.

As usual, new models bring faster processors, though in this case the differences are slight: one of the 15-inch models runs at 2.2GHz, compared with 2.16GHz in the previous generation; the other two models' processors operate at 2.4GHz, up from 2.33GHz.

More important is the extra memory capacity of the new machines. The popular \$1,999 model, which previously came with 1GB of RAM, now comes with 2GB, just like its siblings. And while the last-generation MacBook Pros could handle up to 3GB, the maximum has now increased to 4GB.

The middle model in the lineup now has a 160GB hard drive, up from 120GB in the previous generation, but

the \$1,999 and \$2,799 models have the same capacities as before: 120GB and 160GB, respectively. In all three units, the SuperDrive is up from 6x to 8x. And all three models now come with 802.11n wireless networking enabled out of the box.

Macworld's Buying Advice

If you have a recent MacBook Pro Core 2 Duo, there's probably no compelling reason to trade up. But if you're still using a PowerBook or a Core Duo-based MacBook Pro, you'll get a dramatic performance boost from the latest models. Between the two 15-inch models, the \$1,999 model is now a much better bargain—in my book, the differences don't justify a \$500 premium. **X**

Henry Norr is a veteran Mac technology writer based in Berkeley, California.

Macworld Lab Test

Speedmark 4.5 Test Results

15-inch MacBook Pro Core 2 Duo/2.2GHz	220
15-inch MacBook Pro Core 2 Duo/2.4GHz	234
17-inch MacBook Pro Core 2 Duo/2.4GHz	237
13-inch MacBook Core 2 Duo/2.16GHz (black)	202
17-inch MacBook Pro Core 2 Duo/2.33GHz	223

Longer is better. Reference systems are in *italics*. Speedmark 4.5 scores are relative to those of a 1.25GHz Mac mini, which is assigned a score of 100. All systems were running Mac OS X 10.4.9, with 2GB of RAM and with processor performance set to Highest in the Energy Saver preference pane when applicable. —MACWORLD LAB TESTING BY JAMES GALBRAITH AND BRIAN CHEN

For complete benchmark test results, please visit macworld.com/

2907

15- and 17-Inch MacBook Pros



PROS: Classic design; excellent overall performance; much improved graphics performance; 2GB of RAM, expandable to 4GB; 15-inch models offers bright, environmentally friendly screen; 17-inch model offers very high screen-resolution option.

CONS: Some software needs tuning for new graphics chip; no PCMCIA slot or eSATA port.

PRICE: 15-inch 2.2GHz, \$1,999; 15-inch 2.4GHz, \$2,499; 17-inch 2.4GHz, \$2,799

COMPANY: Apple, www.apple.com

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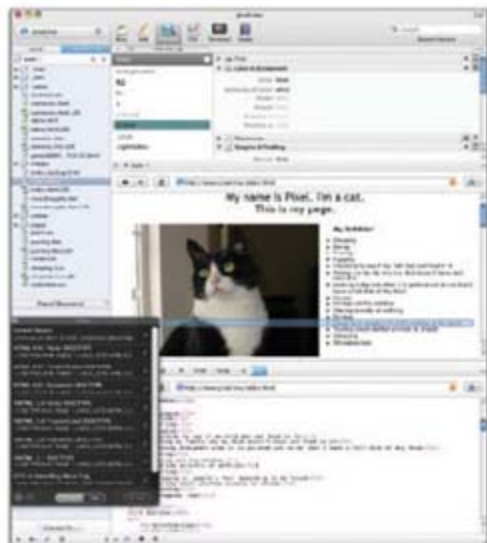
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What we're reviewing online this month

SOFTWARE



Coda 1.0

RATING: **PRICE:** \$99 **COMPANY:** Panic
URL: www.panic.com

If you're a Mac-based Web developer, you probably have a regular set of working tools: a text editor, an FTP client, a CSS editor, a Web browser, and the Apple Terminal window. And given that you have a limited amount of screen real estate, you're no doubt constantly switching between them. Panic's goal is to replace all of those tools with its beautifully designed new program, Coda 1.0.3. But Coda does have limitations, and each of its tools could use improvement. If you don't own any Web development programs yet and are looking to start hand-coding Web sites, Coda is a good first step. Otherwise, wait for version 1.5 or 2.0 before you toss out familiar programs (macworld.com/2919).

GarageSale 3.2

RATING: **PRICE:** \$30 **COMPANY:** iwascoding
URL: www.iwascoding.com

GarageSale 3.2.1 is a program for listing auctions on eBay. It replaces eBay's

multipage, Web-based process with a familiar, Apple-inspired interface. Its strength lies in its power to customize almost every facet of an auction. The amount of control users have over the auction-listing process will appeal to experienced eBay sellers, but the interface will take veteran and occasional sellers alike some time to learn—and they may even need to consult the manual (macworld.com/2920).



Live Interior 3D 1.2

RATING: **PRICE:** \$80 **COMPANY:** BeLight Software
URL: www.belightssoft.com

Live Interior 3D 1.2 is an interior-design program aimed at consumers who want to refurnish or remodel a room, an office, a kitchen, or another interior space. Unfortunately, it limits you to very basic room shapes and designs. If all you need to do is rearrange furniture—and if you're content with using representations of furniture you can find in the provided library or online—you'll be satisfied. But the program is lacking in its ability to accurately design a kitchen with images of actual cabinets and fixtures that you can find at your local home store. This relatively new program has a great deal of potential, though, and we look forward to its next major update (macworld.com/2921).

Parallels Desktop 3.0

RATING: **PRICE:** \$80; upgrade, \$50
COMPANY: Parallels **URL:** www.parallels.com
We first reviewed Parallels Desktop about a year ago. While its core functionality hasn't changed much, this first paid



upgrade has over 50 new or enhanced features, and improved (albeit still limited) support for 3-D graphics. These additions make this version an even better alternative to Boot Camp. Unless you need support for full 3-D graphics or for esoteric hardware, Parallels will probably work for you. It's currently the best way to run Windows, Linux, and many other operating systems alongside OS X (macworld.com/2930).



Tasty Planet

RATING: **PRICE:** \$20 **COMPANY:** PlayFirst
URL: www.playfirst.com

In Tasty Planet, you are a sentient gray glob of experimental bathroom cleaner run amok. You've been created to chomp up germs and bacteria, but you have a voracious—nay, insatiable—appetite, and the more you eat, the larger you get. There are 60 progressive levels in all; you start out eating organisms like paramecia and small insects, and eventually you're rolling down the street while eating cars and anything else that gets in your way. The game has a fun, cartoony style and a peppy, lounge-like soundtrack that's sure to appeal to people with a lighthearted sense of humor (macworld.com/2931).

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REVIEWS

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HARDWARE

Aficio CL3500N

RATING:  **PRICE:** \$799 **COMPANY:** Ricoh

URL: www.ricoh.com

The Ricoh Aficio CL3500N is a color laser printer designed for small offices and workgroups. Offering built-in networking capability, fast print speeds, and a 530-sheet paper tray, this well-built machine can help make your work environment more productive. It also supports Adobe PostScript 3. And in case that's not enough, Ricoh offers a variety of additional-cost customization options: you can soup up this printer with extra RAM, a duplex-printing unit, or an attachable scanner, among other choices (macworld.com/2838).



Dock Adapter for iPod Shuffle

RATING:  **PRICE:** \$20 **COMPANY:** Griffin

Technology URL: www.griffintech.com

If you have both a dockable iPod and a second-generation iPod shuffle, you know that the latter is incompatible with most accessories for the former. Griffin's Dock Adapter provides a solution: the bottom of the adapter is shaped exactly like an insert for Apple's Universal Dock system; the top of the adapter looks much like the dock that Apple includes with the shuffle for syncing and charging. You just place your shuffle in the Adapter and then drop the Adapter into any Universal Dock cradle. You won't be able to use remote controls, and the shuffle itself can't play audio while you're charging or syncing, but the Dock Adapter is a



Remote Control

Slingbox

RATING:  **PRICE:** Slingbox Pro,

\$250; Slingbox AV, \$150; Slingbox

Tuner, \$130 **COMPANY:** Sling Media


URL: www.slingmedia.com

The Slingbox is a device that's hard to define: It's a rectangular plastic box that you attach to both your home computer network and your video source—an analog cable line, a cable box, a digital video recorder, or a satellite receiver. Once that's done, you can use your Mac to watch your home television signals from anywhere with fast Internet access. Powered by slick-looking software, the Slingbox is an excellent tool for anyone who wants the convenience of watching TV in far-flung locations. The device's lack of built-in Wi-Fi support is unfortunate, and users of non-UPnP routers will need to manually configure their home networks in order to connect from outside the home. But if you're a frequent traveler, especially if you're a sports fan or have a DVR bursting with recorded shows, the Slingbox will successfully send the comforts of home to wherever you roam (macworld.com/2929).



clever accessory for your accessories (macworld.com/2928).

Epson Stylus Photo 1400

RATING:  **PRICE:** \$400 **COMPANY:** Epson

URL: www.epson.com

Epson's Stylus Photo 1400 is a photo ink-jet printer that produces high-quality, borderless prints as large as 13 inches by 19 inches. Designed to make your images pop off the page at

large print sizes, the 1400 also lets you print on a CD or DVD, as well as print directly from your camera, all for \$400. It isn't the speediest photo printer, and the software for printing on discs lacks some features, in particular iLife support. But the prints themselves—the most important factor—exhibit rich, accurate color and detail, and should last a long time with proper care (macworld.com/2924).



Kodak EasyShare C875 △

RATING:  **PRICE:** \$200 **COMPANY:** Kodak
URL: www.kodak.com

The Kodak EasyShare C875 costs just \$200 but packs many features. It takes 8-megapixel shots and has a 5× optical zoom lens. It has a large, bright 2.5-inch LCD screen and numerous scene modes to help you quickly choose the right setting for a particular subject and lighting condition. The screen displays plenty of explanatory messages, but the thumb-operated joystick can be difficult to get used to. First-time digital photographers will find it easy to learn to use, and the camera's advanced features will give them room to grow over time (macworld.com/2925).

Nano2 Slim

RATING:  **PRICE:** \$25 **COMPANY:** Fruitshop
URL: www.fruitshop.us

Like many cases for the second-generation iPod nano, the Nano2 Slim is a thin, rubberized sheath with openings for the screen and the Hold switch. But what makes it unique is a small headphone-cable wrap on the back, along with two notches at the top that hold the stems of your earbuds; thanks to these features, your headphone cables won't end up a tangled mess. The cable wrap's downside is that it's made specifically for the iPod's included earbuds and therefore it may not work with other earbuds (macworld.com/2926).

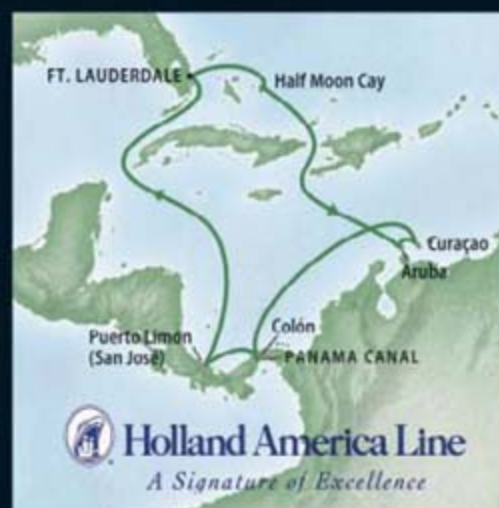
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Top Products

Your guide to the best hardware we've tested. See more at macworld.com/reviews.

PRINTERS

LASER PRINTER C6100dn

RATING: 

PRICE: \$1,102

COMPANY: Oki Data

URL: www.okidata.com



The C6100dn, from Oki Data, produces great-looking prints, and it includes built-in duplexing. It has easy network connectivity and quick printing speeds (macworld.com/1670).

INK-JET PHOTO PRINTER

Pixma iP6700D

RATING: 

PRICE: \$180

COMPANY: Canon

URL: www.canon.com



The Canon Pixma iP6700D prints excellent-quality photos comparable to those developed in a lab. Its ease of use ensures that veteran photographers won't miss the long days they spent in a darkroom (macworld.com/2700).

COMPACT PHOTO PRINTER

PictureMate Flash PM 280

RATING:  PRICE: \$300

COMPANY: Epson

URL: www.epson.com



The PictureMate Flash PM 280 offers the best-looking 4-by-6-inch borderless photos of all the portable photo printers we've tested, and it prints them fast (macworld.com/2396).

MULTIFUNCTION INK-JET

Photosmart C7180

RATING: 

PRICE: \$400

COMPANY: Hewlett-Packard

URL: www.hp.com



The HP Photosmart C7180's features, connection options, and solid print and

scan quality make it an excellent ink-jet MFP (macworld.com/2475).

MULTIFUNCTION LASER AcuLaser CX11NF

RATING:  PRICE: \$800

COMPANY: Epson

URL: www.epson.com



This device has it all: it's a color laser print-

er, a sheet-fed scanner, a copier with networking capabilities, and a fax machine (macworld.com/1669).

FLATBED SCANNER

Perfection V700 Photo

RATING: 

PRICE: \$550
































COMPANY: Epson

URL: www.epson.com



The Epson Perfection V700 Photo is an excellent midrange scanner for people who need to scan both reflective

MACS

PRODUCT	PROCESSOR	RATING	BEST PRICE ^a	DISPLAY	SPEEDMARK 4-5 SCORE ^b	FIND CODE ^c
DESKTOP						
	Intel Core 2 Duo/1.83GHz		\$929	17 inches		1727
	Intel Core 2 Duo/2GHz		\$1,049	17 inches		1728
	Intel Core 2 Duo/2.16GHz		\$1,299	20 inches		1729
	Intel Core 2 Duo/2.16GHz		\$1,699	24 inches		1730
	Intel Core Duo/1.66GHz		\$556	not included		1731
	Intel Core Duo/1.83GHz		\$755	not included		1732
	Intel Xeon/ two dual-core 2.66GHz		\$2,249	not included		2489
PORTABLE						
	Intel Core 2 Duo/2GHz		\$1,050	13 inches		2863
	Intel Core 2 Duo/2.16GHz		\$1,240	13 inches		2864
	Intel Core 2 Duo/2.16GHz (black)		\$1,380	13 inches		2865
	Intel Core 2 Duo/2.2GHz		\$1,980	15 inches		2932
	Intel Core 2 Duo/2.4GHz		\$2,390	15 inches		2933
	Intel Core 2 Duo/2.4GHz		\$2,560	17 inches		2934

^aFrom a PriceGrabber survey of retailers as of July 5, 2007. ^bSpeedmark 4.5 is Macworld Lab's standard test tool for benchmarking systems running Mac OS X 10.4 (Tiger). For information on Speedmark testing, go to www.macworld.com/speedmark. ^cTyping in find codes after macworld.com/ directs you to a product's review or overview. For example: macworld.com/2489 contains an overview of the 2.66GHz Mac Pro.

Top Products are those we've recently reviewed in a comparison of like products. As new products become available, we'll update the list. For longer reviews of these products and for other product recommendations, go to macworld.com/reviews. All prices are as rated. For the best current prices, go to macworld.pricegrabber.com. All products were available as of June 15, 2007.

media and transparencies (macworld.com/1519).

DIGITAL CAMERAS

DIGITAL SLR D40

RATING: 

PRICE: \$599

COMPANY: Nikon

URL: www.nikonusa.com



At \$599, the Nikon D40 is a great value. This 6.1-megapixel camera comes with every feature you'd desire in a DSLR, such as adjustable ISO, Raw mode, and a variety of image-processing features (macworld.com/2498).

COMPACT DIGITAL CAMERA

Coolpix S7c

RATING: 

PRICE: \$350

COMPANY: Nikon

URL: www.nikon.com



If you're looking for a full-featured point-and-shoot camera that delivers excellent image quality, the 7-megapixel Nikon Coolpix S7c is a great choice. Its ease of use and convenient Wi-Fi features add great value to a fine camera (macworld.com/2386).

MINIDV CAMCORDER

PV-GS320

RATING: 

PRICE: \$500

COMPANY: Panasonic

URL: www.panasonic.com



Compared with other 3-CCD MiniDV camcorders, the Panasonic PV-GS320 is a bargain. And it's a good choice for people who want a camcorder that shoots high-quality video and still images for half the cost of a high definition device (macworld.com/2701).

LCD MONITORS

LARGE DISPLAY LP2465

RATING: 

PRICE: \$799

COMPANY: Hewlett-Packard

URL: www.hp.com



The LP2465 is an affordable and flexible 24-inch desk-

top LCD with a 16:10 wide-screen aspect ratio that immediately makes one think of the cinema (macworld.com/2508).

MEDIUM DISPLAY

MultiSync 2190UXi

RATING: 

PRICE: \$1,500

COMPANY: NEC

URL: www.necdisplay.com



The 21-inch NEC MultiSync 2190UXi doesn't come cheap, but graphics pros will love its vivid and accurate colors and wide viewing angle (macworld.com/1445).

DUAL-LAYER DVD BURNER

DRX-830UL-T

RATING: 

PRICE: \$130

COMPANY: Sony

URL: www.sony.com



The Sony DRX-830UL-T is an external rewritable drive that's capable of burning multiple for-

mats at very fast speeds. You can't ask for much more from a CD and DVD burner (macworld.com/2510).

FIREWIRE HARD DRIVES

DESKTOP DRIVE G-Drive Q 500GB

RATING: 

PRICE: \$559

COMPANY: G-Technology

URL: www.g-technology.com



The G-Drive Q SATA hard drive has nearly every type of connection you could want, and it operates without a fan, so it's very quiet (macworld.com/1622).

PORTABLE DRIVE

Rocbit 2B

RATING: 

PRICE: \$230


COMPANY: Roc-

secure URL: www.rocsecure.com



The Rocbit 2B is a fast and pleasantly quiet portable hard drive featuring real-time encryption. It's well worth its cost if security is a concern (macworld.com/1443).

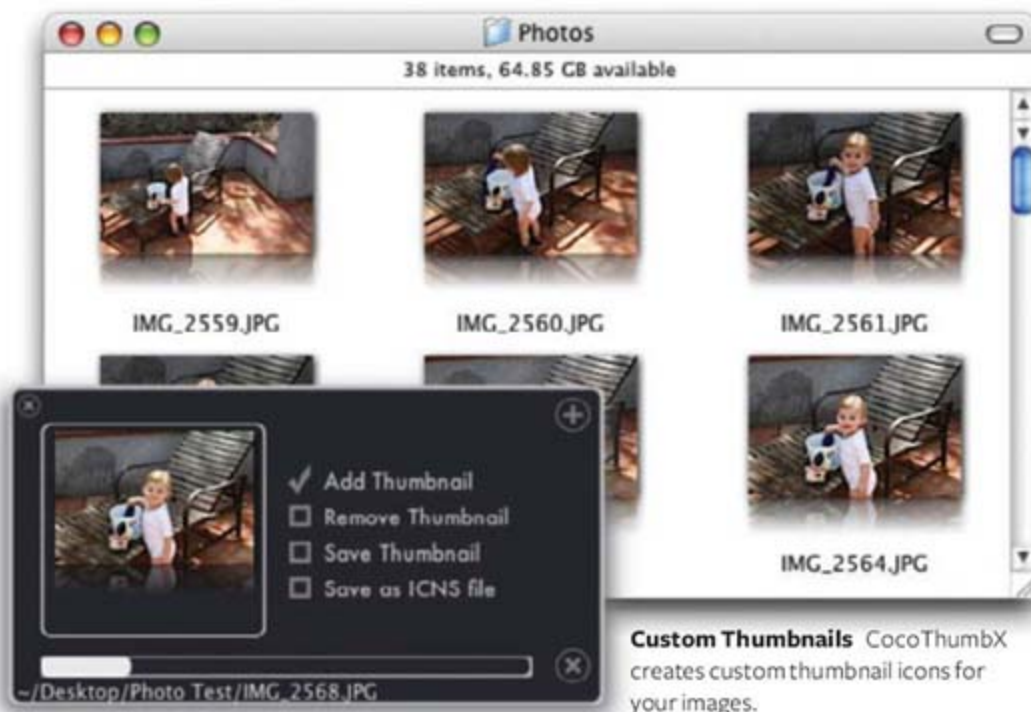
iPODS

PRODUCT	CAPACITY	RATING	BEST PRICE*	DISPLAY	BATTERY LIFE	MEDIA SUPPORTED	FIND CODE*
 iPod	30GB		\$190	2.5-inch color	14 hours of music playback; 4 hours of slide shows with music; 3.5 hours of video playback	Music, photos, album art, video, games	2233
 iPod	80GB		\$325	2.5-inch color	20 hours of music playback; 6 hours of slide shows with music; 6.5 hours of video playback	Music, photos, album art, video, games	2234
 iPod nano	2GB		\$44	1.5-inch color	24 hours of music playback; 5 hours of slide shows with music	Music, photos, album art	2235
 iPod nano	4GB		\$140	1.5-inch color	24 hours of music playback; 5 hours of slide shows with music	Music, photos, album art	2236
 iPod nano	8GB		\$199	1.5-inch color	24 hours of music playback; 5 hours of slide shows with music	Music, photos, album art	2237
 iPod shuffle	1GB		\$60	N/A	12 hours of music playback	Music	2238

*From a PriceGrabbers survey of retailers as of July 5, 2007. *Typing in find codes after macworld.com/ directs you to a product's review or overview. For example: macworld.com/2233 contains an overview of the 30GB video iPod.

Mac Gems

Get more and expanded reviews at macworld.com/macgems BY DAN FRAKES



UTILITY

CocoThumbX 3.1

RATING: **PRICE:** payment requested

COMPANY: Sven Janssen **URL:** macworld.com/2882

If you ever have to create thumbnail icons for image files on your hard drive, Sven Janssen's CocoThumbX 3.1 may be just what you need. Simply drag an image or a group of images—in BMP, EPS, GIF, ICNS, JP2, JPG, PDF, PICT, PNG, SGI, TARGA, or TIFF format—to the CocoThumbX window, and the application will create a 128-by-128-pixel thumbnail icon for each file and include it in the file so the icon will display in the Finder.

You can customize your thumbnail icons with a drop shadow, an iLife-like reflection, rounded corners, a border, or any combination; unfortunately, there's no way to preview each setting quickly. You can even create representative thumbnails for Microsoft Word, RTF, RTFD, HTML, CSS, plain-text, and numerous Apple-friendly movie file formats. A *folder watch* feature, cur-

rently in beta, works much like OS X's Folder Actions: the utility will watch particular folders for new files and create thumbnails for them. You can also use CocoThumbX to remove thumbnails from image files. Finally, it can also create stand-alone thumbnail images—for use on a Web page, for example, or in another program.

GRAPHICS

Hex Color Picker 1.4

RATING: **PRICE:** payment requested

COMPANY: Waffle Software **URL:** macworld.com/2883

Need to find the hex code for a color—the code you use to designate a color in HTML and CSS, such as #FFFFFF? If you're a fan of Mac OS X's built-in color picker (which is a palette labeled Colors that is available in OS X programs such as iCal and Mail), you'll also like the handy plug-in Hex Color Picker, which gives you these codes whenever you

access the color picker. Once installed, Hex Color Picker appears as an additional style in OS X's Colors palette. Use one of the standard styles, or the palette's Favorites area, to choose your color, and then switch to the new Hex Color Picker style, where you'll see the color's hex code. Click on the Copy To Clipboard button, and you can paste that code into another program.

You can also choose a color by typing its name in Hex Color Picker's code box; it recognizes standard HTML color names. For example, if you type **orange** in the box and press the return key, Hex Color Picker will tell you that the code for orange is #FFA500. Conversely, if you want to see what color a particular hex code represents, you can type or paste that code into the box, and the color will appear.

UTILITY

Compress Files 1.0

RATING: **PRICE:** \$10 **COMPANY:** Apimac

URL: macworld.com/2884

Thanks to ever-growing hard-drive capacities and ever-faster network connections, compressing files isn't the vital and frequent task it used to be. Still, it's useful in certain situations: for example, when you're attaching files to



Color Coding Hex Color Picker lets you use OS X's own color picker to find HTML color codes.

The image features a pair of V-Moda Vibe duo earbuds and their cable. The earbuds have a black, textured, cone-shaped body with a silver-colored mesh band around the middle and white silicone ear tips. The cable is black and braided, with a 3.5mm gold-plated jack at one end and a silver-colored inline remote with a V-Moda logo at the other. The entire product is set against a dark, reflective background.

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v-moda

for mp3 +
iPhone



Vibe duo available at Apple Store and v-moda.com

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an e-mail message, trying to fit 700MB of data onto a 512MB flash drive, or copying files to a server or drive that doesn't support Mac OS X metadata.

OS X users have lots of options for compressing files. But if you mostly exchange files with Windows, Linux, or Unix users, you undoubtedly want a way to omit Mac-specific metadata that may show up as virtual litter when your archives are uncompressed on these platforms. Apimac's Compress Files 1.0 is the handiest way I've found to remove this extraneous data when compressing files, and it provides a dead-simple interface for doing so.

If you're copying data to a server or saving it for later, Compress Files' Compress screen is the way to go; if you're e-mailing the data, click on the Email tab. Either way, the utility can omit each file's resource fork (which can appear to non-Mac users as a near-duplicate, but smaller, version of the file), as well as the Finder's .DS_Store files, from the resulting archive. You can also choose the archive type you want: .zip, .tar, .tar.gz,



Compression Help Compress Files enables you to quickly compress files for sending to non-Mac users.

.tar.bz2, or OS X disk image. Then you just drag the files and folders you want to compress into the window. The Compress screen saves your archive wherever you specify; the Email screen attaches it to a new e-mail message.

Compress Files' Archive screen lets you create archives and save them to a particular location—for example, to a folder of archived files on your own Mac, or to a shared directory on a network server.

Compress Files' documentation is sparse, and its progress bar doesn't really show any progress. I also wish it could automatically copy files to FTP and other remote servers. But if you often exchange files with folks who aren't lucky enough to work on a Mac, Compress Files helps you be more considerate.

PRODUCTIVITY

TextClipping 1.01

RATING: **PRICE:** payment requested

COMPANY: Hendrik Holtmann **URL:** macworld.com/2885

One of the blind spots, so to speak, of Mac OS X's Spotlight search technology is text-clipping files. These files—created by dragging text from nearly any application to the Finder—are a

A perfect shot, a peace of mind...

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Available in Firewire 800, eSATA, USB and SCSI versions, these secure content storage series utilizes protection levels up to RAID 6, allowing failures up to two drives with the stored contents still 100% intact. Overwhelmingly minimize your concerns for down-time, in turn maximizing your workflow to keep you on going, to leave you with a peace of mind.

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NiteoAV
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Synetic
www.synetic.net

European Region

Raidsonic
www.raidsonic.de

UK

Raidus
www.raidus.co.uk

Italy

Lead Srl
www.leadsl.it

Japan

ASK
www.ask-ssa.com

Korea

Andico
www.andico.co.kr

Taiwan

Savemore
www.savemore.com.tw

Hong Kong

Shooting
www.shooting.com.hk

Australia

Silicon Memory
www.siliconmemory.com.au

Powered By: Raidon Technology - www.stardom.com.tw

handy way to store information, but Spotlight can't seem to find this text.

The problem is that each text clipping stores its data in its resource fork—a section of a file generally used to store information *about* the file, rather than the file's data—and Spotlight's content search doesn't examine resource forks. Enter TextClipping 1.01. Once installed, it lets Spotlight index the resource forks of text-clipping files, so it can search those contents. Best of all, you don't have to wait for Spotlight to reindex your hard drive; the contents of text clippings immediately become searchable.

UTILITY

Refresh Finder 1.2

RATING:  **PRICE:** free **COMPANY:** Söderhavet **URL:** macworld.com/2886

If I had to guess which Mac OS X feature gets the most criticism, I would say it's the Finder—not because it's bad, but because it has the potential to be so good,

and because we use it so much in our day-to-day work that its flaws are especially noticeable.

One of my pet peeves is the Finder's tendency to lag behind me. I'll save a document in a folder, but the document won't appear immediately. Or I'll create a new folder and name it, but the new folder doesn't immediately get sorted correctly. Or a file will be downloading, but the folder won't reflect the file's increasing size as the download progresses. Sometimes, clicking on the window will fix the problem, but other times I have to close and reopen the window, or change the view mode, in order to update the contents.

Söderhavet's free Refresh Finder 1.2 is a simple AppleScript that refreshes open Finder windows when launched. Its icon looks just like a Finder toolbar button, and in fact you can add Refresh



Windows Update Refresh Finder adds a button to Finder windows to ensure that you're seeing the latest contents.

Finder to Finder-window toolbars to get a new Refresh button.

So whenever you want to display an open Finder window's true contents, just click on the new Refresh button in any Finder-window toolbar. However, note that Refresh Finder won't update the contents of expanded subfolders if you're viewing a Finder window in List view. To get around this, you'll need to open the subfolders separately and then refresh them individually. ❌

Dan Frakes is a senior editor at *Macworld* and the senior reviews editor at *Playlistmag.com*. Send your thoughts on this column, or on things you'd like to see in future columns, to macgems@macworld.com.

Keep iPhone by your side—in style



HipCase™ for iPhone
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The stylish and durable leather HipCase combines sleek protection with easy, convenient access to iPhone. With the integrated horizontal belt clip, HipCase provides the utmost in comfort and accessibility. It features a center notch for easy one-handed iPhone pick up, as well as unobstructed access to the headphone jack, allowing you to listen to iPhone music or answer a call while keeping your iPhone securely cradled on your hip.

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Meet the iPho

How good is Apple's new do-it-all mobile device? We make



For the first half of 2007, the mere mention of the word *iPhone* was certain to produce an outpouring of pontification about the capabilities of Apple's mobile device, debate over its features, and speculation on how it would stack up to other smart phones. All that opinion was quite impressive, given that the only exposure most people had had to the iPhone had been an hour-long demonstration from Steve Jobs at Macworld Conference & Expo.

The time for wondering is over—the iPhone has arrived, so now it's time to see exactly what this much ballyhooed device delivers.

We got our hands on both iPhone models—the \$499, 4GB iPhone and its \$599, 8GB counterpart—and explored all the features that Apple advertised (and a few that the company didn't). Here's what you need to know about the iPhone and its capabilities. Does this 4.8-ounce handset live up to all the hype?

PHONE FEATURES PAGE 60 **MULTIMEDIA FEATURES** PAGE 62 **INTERNET FEATURES** PAGE 64 **IPHONE REVIEW** PAGE 66

PHOTOGRAPHY BY PETER BELANGER

ne
the call.



Make Contact At the heart of the iPhone's phone feature is your list of contacts.

Phone Features

BY JIM DALRYMPLE

Apple packed a lot into the iPhone's 4.5-by-2.4-by-0.46-inch frame. But first and foremost, it's a phone. And if it's to be a successful one, the iPhone needs to make connecting with your contacts as simple as pressing a button.



CONTACTS

At the heart of the device's phone features is Contacts, the collection of phone numbers, e-mail addresses, and other personal data about anyone you'll ever want to talk to. To truly take advantage of the iPhone's features, you'll

need an extensive—and up-to-date—contact list.

Syncing There are a couple of ways to get your contacts onto the iPhone. The easiest is via iTunes, which automatically syncs contacts when the device is plugged into your Mac. The first time you connect your phone, iTunes will ask which contacts you want imported—you can specify selected groups or just import every contact you have in OS X's Address Book.

Syncing is bidirectional—any changes you make to a contact on the iPhone will show up on your Mac, and vice versa.

You can also add contacts directly to the iPhone by tapping on the plus sign (+) at the top of the Contacts screen. A contact form similar to what you see in

Address Book will appear, and you'll use the on-screen keyboard to fill in a name, a number (or multiple numbers), an e-mail address (or addresses), and other information, including birthdays, nicknames, job titles, and notes.

If you have a few hundred contacts or more, the Contact Groups feature can save you search time. If you have Work and Personal groups set up in Address Book, those groups will sync to the iPhone. When you access your contact list, tap on Groups in the top left corner and choose the group you want to access. Instead of scrolling through all your contacts, you can look through a smaller, select group.

Searching Looking up a contact on the iPhone works the same way as searching for a song: The contact list shows every contact, listed alphabetically; you can scroll up or down the list with a flick of your finger, or pick a letter from the alphabet running down the right side of the screen to jump to contacts whose names start with that letter.

PHONE SCREEN

Almost everything on the iPhone is a tap or two away, and the phone features are no different. Touching the Phone icon on the bottom of the Home screen pro-

duces five buttons: Favorites, Recents, Contacts, Keypad, and Visual Voicemail. We've talked about Contacts; here's a rundown of what the other buttons do.

Favorites This section is a user-defined list of your most frequently called numbers—think of it as the iPhone's equivalent of speed dialing (though it takes a couple more taps to dial a number than a speed-dialing feature should). Tapping on the plus sign on the Favorites screen brings up your contacts—click on a contact's name, and then tap on the Home, Mobile, or Work number to add it to your Favorites. (You can add more than one number for a person, though each one shows up as a separate Favorites entry.)

Recents All the calls coming into and going out of your iPhone are collected here and shown in two views—All or Missed. The latter shows which person (if they're in your Contacts list) or phone number called and how many times he or she has tried to reach you. Tap on the name or number to call that person back.

Keypad If you need to call someone whose number you don't have stored—or if you prefer to press numbers to initiate a call—tap on the Keypad button to summon an old-fashioned keypad. Press the Add Contact icon on the Keypad to save the contact for future use.

Visual Voicemail You retrieve messages on this screen. But this is unlike other voice-mail services, which require that you listen to all messages in the order received; Apple's implementation displays messages in a list, so you can pick which messages to listen to, in any order. Unheard voice mails have a blue dot next to them, so you can easily see the ones you haven't heard—tapping on the message begins playing the voice mail. Scroll with the slider to fast forward or rewind a message; if you want to call the person back, just tap on the Call Back button.

PHONE CALLS

Tapping on the Phone menu gives you several ways to make a call: you can scroll through your contacts, tap on the one you want, and then tap on the number; tap on a number in Recents, Favorites, or Visual Voicemail; or use the on-screen keypad. You also have several on-screen options when you're on a call.

DID YOU KNOW?

The iPhone's settings let you pick how contacts are sorted (by last name or first name), as well as how they're displayed ("Jim Dalrymple" or "Dalrymple, Jim") on screen.

Picking a Service Plan

The decision to buy an iPhone doesn't just hinge on whether you want to spend \$499 to \$599 on a mobile device. You must also consider how much you'll pay each month for voice and data services, as well as whether you'll want to pay that for the two years that Apple and service-provider AT&T require that you commit to the iPhone.

There are six individual monthly plans: \$60 per month for 450 minutes of talk time; \$80 for 900 minutes; \$100 for 1,350 minutes; \$120 for 2,000 minutes; \$170 for 4,000 minutes; and \$220 for

6,000 minutes. All plans include unlimited data, Visual Voicemail, rollover minutes, unlimited mobile-to-mobile calling, and 200 SMS (Short Message Service) text messages per month. If 200 isn't enough, you can pay an extra \$10 per month for 1,500 messages or an extra \$20 per month for unlimited messaging.

Family plans featuring shared minutes for multiple phones start at \$80 per month for 700 minutes.

How does the iPhone's service plan compare to similar offerings from other providers? See for yourself.—LISA SCHMEISER

RATE PLANS COMPARED

VENDOR	STARTING MONTHLY PRICE	MINUTES PER MONTH	DATA	TEXT MESSAGING	LENGTH OF CONTRACT	ACTIVATION FEE
AT&T (for Apple iPhone)	\$60	450	Unlimited access	200 per month, included in the service	2 years	\$36 per line
AT&T (general)	\$50 (\$40 monthly, \$10 Smartphone Connect)	450	5 MB	200 per month, for an additional \$5 per month	1 year	\$36 per line
Sprint-Nextel BlackBerry Unlimited Email and Web - Walkie-Talkie	\$50	none ^a	Unlimited access	Users can order the Sprint EasyOffice text-messaging service for an additional \$20 per month ^b	2 years	\$36 per line
T-Mobile BlackBerry Minutes and Mail	\$60	1,000	Unlimited access	Unlimited text messages	2 years	\$35 per line
Verizon (America's Choice Basic)	\$40	450	N/A	\$0.15 for each message sent or received	1 year ^c	\$35 per line
Verizon's BlackBerry Voice and Data Choice Bundle	\$80 (\$40 voice service, \$40 data access)	450	Unlimited access	\$0.15 for each message sent or received	1 year ^c	\$35 per line

N/A = not applicable. ^aFor minutes per month on the Sprint-Nextel plan, users pay as they go—20 cents per minute for voice calls plus an additional 20 cents per minute for long-distance calls. Domestic off-network roaming calls are 50 cents per minute with an additional 25 cents per minute for long-distance calls. ^bSprint-Nextel's text-messaging service requires a separate \$15 activation fee. ^cFor both Verizon plans, users can upgrade to a two-year contract in exchange for a free phone every two years.

Incoming Calls When someone calls you, the iPhone gives you two options: Accept and Decline. Tapping on the red Decline button directs the call to voice mail. The green Accept button answers the call. If your phone happens to be in the battery-preserving locked mode when a call comes in, pushing the unlock slider answers the call.

On-Screen Options Six menu items appear during phone calls: Mute, Keypad, Speaker, Add Call, Hold, and Contacts. Mute turns off the microphone—you can still hear callers on the other end. Keypad displays a standard numeric dialing pad. Hold prevents you and your caller from hearing each other. Speaker puts the call on speaker phone, and Contacts summons your contact list.

That leaves Add Call, the iPhone's take

DID YOU KNOW?

The iPhone has a ringtones feature. You can assign one of 25 included sounds to incoming calls or specific callers. What you can't do, however, is use any of the songs you might have stored on the iPhone.

on conference calling. When you're on a call with someone and want to add another caller, tap on the Add Call button; the first caller will be put on hold while you dial the number or tap on the appropriate contact. The on-screen menu will change, with Merge Calls replacing Add Call, and Swap replacing Hold. Merge Calls combines the two calls; Swap switches which caller you have on hold.

If you're on a call when someone else calls you, you can choose Ignore or Hold Call + Answer. The first choice directs the incoming call to voice mail; the second places the current call on hold before giving you the option of merging the two calls or swapping between them.

Jim Dalrymple is Macworld.com's news director and a former BlackBerry 8700c user.



Visualize Voicemail The iPhone's Visual Voicemail feature displays your messages in a list, allowing you to pick which one to listen to first.



Wide-Screen View Watch videos in either full-screen or wide-screen mode.

Multimedia Features

BY CHRISTOPHER BREEN

Steve Jobs calls the iPhone “the best iPod we’ve ever made.” And in many ways, the phone’s music and video features are exactly what you’ve come to expect from Apple’s portable music player. Still, there are key differences. Here’s a look at what the iPhone adds, as well as the iPod-like features it’s missing.

PLAYING MUSIC

The iPhone is very much integrated with iTunes, starting with the fact that you’ll need the latest version of the program—7.3, as of this writing—in order to activate the phone and fill it with music and videos.

Syncing The iPhone works almost exactly like an iPod nano or a fifth-generation (5G) iPod. Just select the iPhone in iTunes’ Source list and configure the Music, Photos, Podcasts, and

Videos tabs to select the content you want to sync to your iPhone.

In the Music tab, you can choose to sync all songs and playlists or just selected playlists; similarly, in the Podcasts tab, you can ask iTunes to sync all your podcasts or just a selection—the three most recent podcasts you haven’t listened to, for example. (Syncing video works exactly the same way.)

iPod users will notice one significant difference in syncing. While iPods offer

the option of managing media manually—selecting something in your iTunes library and dragging it to the iPod icon in the Source list—the iPhone doesn’t. The only way to add media is to use iTunes’ syncing controls.

Searching Since there is no iPod-esque scroll wheel, get ready to tap your way to what you’re looking for. You can choose to navigate your collection by Playlists, Artists, Songs, or Videos. Tap on the More icon, and you’ll see additional options, such as Albums, Audiobooks, Compilations, Composers, Genres, and Podcasts.

Tap on the Songs icon, for instance, and you’ll get an alphabetical list of every song on your iPhone. Flick your finger up or down to scroll through the list. Or if the list contains enough entries, you can tap on letters running down the right side of the screen, as you can in your Contacts list.

There is another, more visual way to search your phone’s musical contents—Cover Flow, the landscape view that displays album covers and podcast artwork rather than text. Just turn your iPhone to landscape orientation, and Cover Flow appears. Swoop your finger to the right or left to move from cover to cover.

Tap on an album cover once or tap on the *i* button at the bottom right of the screen, and the cover flips around to show you the contents of the album (or as much of the album as the iPhone holds).

Playback Of course, because the iPhone doesn’t have a wheel and but-

Essential iPhone Accessories

At its heart, the iPhone is an iPod, so it’ll work with many current iPod accessories (see our compatibility roundup at macworld.com/2946). But here are some iPhone-specific add-ons you may want to consider.

Bluetooth headsets are pricey, but they provide impressive noise-cancellation circuitry that lets you and your conversation partner hear each other, even in the noisiest environments. Check out Aliph’s \$120 **Jawbone** (pictured here; www.jawbone.com) and Plantronics’ \$150 **Discovery 665** (www.plantronics.com).

Apple’s \$9 **three-pack of dock adapters** (store.apple.com)



lets you use your iPhone with many Universal dock accessories, such as speaker systems.

Many iPhone owners will want to use their own, higher-quality headphones, but the iPhone’s recessed headphone jack requires that you have an adapter such as Belkin’s \$11

Headphone Adapter for iPhone

(www.belkin.com) or Shure’s \$40 **Music Phone Adapter** (www.shure.com); the latter includes a microphone that lets you use your

headphones as a phone headset. An alternative is V-Moda’s \$101, iPhone-compatible **Vibe Duo** (www.v-moda.com), which combines the company’s excellent Vibe headphones with an inline microphone. —DAN FRANKS



You're not constrained to having Playlists, Artists, Songs, and Videos at

the bottom of the iPhone's iPod screen. You can change what appears there by tapping on the More icon and then on the Edit button. A Configure screen will display icons for Albums, Podcasts, Audiobooks, Genres, Composers, Compilations, Playlists, Artists, Songs, and Videos. To swap in one of these icons, just tap and hold on an icon and drag it over the icon you want to replace. Tap on Done when you're done.

tons to control things, it takes a different approach to its Now Playing screen, which is where you control playback. The main Now Playing screen shows the album cover, play controls (Previous, Play, and Forward), and volume slider. To adjust volume, tap on the silver ball in the volume slider and drag your finger to the left or right to decrease or increase volume, respectively.

Tap once on the Now Playing screen, and you gain controls for switching on the Repeat and Shuffle options, as well as a playhead and a timeline that details the length of the playing track and where you are in the track. You can tap and hold on the playhead and move it to the right or left to go forward or back in the track.

PLAYING VIDEO

Video content is organized by Movies, TV Shows, Music Videos, and Podcasts. Tap on a title under one of those categories, and playback begins, just as with a song.

However, the playback controls—which you access by tapping once on the screen—are slightly different for video. You still get the Previous, Play/Pause, and Forward buttons, along with a volume slider below them. Above them are a timeline and a silver ball that indicates where you are in the video. Tap on the double-arrow button to the side of the timeline to toggle between the full- and wide-screen views. (You can also toggle between these two views by double-tapping on the screen.)

When you tap and hold on the Previous or Forward button, the video will rewind or fast-forward, respectively.

The iPhone's Other Visual Charms

Music and video playback highlight the iPhone's multimedia features. But they're not the only things to feast your eyes and ears on. Icons 3 through 5 on the iPhone's Home screen are dedicated to Photos, Camera, and YouTube. Here's a quick rundown of what to expect when you tap on each one.



Photos The iPhone can show pictures you've synced to it with iTunes. You can sync photos from iPhoto, Aperture (if you have a copy), a folder of your choosing, or your Pictures folder.

The iPhone doesn't copy the images in their original form to the iPhone; instead, it formats the image to the right size and resolution for the best display on your phone. This takes very little time—perhaps a couple of minutes for a thousand images. Once iTunes has optimized an image for the iPhone, it won't need to again, so future syncs will skip this step for already optimized images.

When looking at photos on the iPhone, you can view a full-size version of a particular image by tapping once on it. In this full-screen mode, you can move to the next or previous image simply by swiping your finger to the left or right, respectively. Hold your iPhone horizontally, and the images will orient themselves that way, too—it's a great way to view landscape images in their proper context.



Camera Like many mobile phones, the iPhone sports a built-in camera. It won't make

you ditch your DSLR—or your point-and-shoot, for that matter—anytime soon.

The 2-megapixel camera comes without a zoom feature or a flash; it takes images at 1,200-by-1,600-pixel resolution; and provided that you've got plenty of ambient light, the photos are pretty good.

To use the camera, tap on the Camera icon and point the back of the iPhone at whatever you'd like to take a picture of. The display will show what the camera sees. To take a picture, just tap on the Camera icon at the bottom of the screen. You'll hear a shutter-click sound effect as the iPhone captures the image.



YouTube Just like the Apple TV, the iPhone gives you the ability to watch YouTube videos, encoded in the H.264 video codec and streamed off the Internet.

The playback controls are the same as the controls for video playback, with two exceptions: on the left side of the playback controls is a bookmarks icon that lets you add the currently playing video to your list of bookmarks; on the right is an e-mail icon for sending the YouTube video's URL to your friends.

Note that YouTube's entire catalog is not available. In the past, YouTube encoded its videos with Flash. Flash playback is not supported on the iPhone. YouTube is in the process of converting its content to the H.264 format, which will be playable on the iPhone and the Apple TV. YouTube hopes to complete the conversion by this fall. —CHRISTOPHER BREEN

The longer you hold, the faster the video skips ahead or back.

A full-length motion picture takes up around 1GB of storage; even on the 8GB model, that's a significant chunk for just one item. To help ease the storage crunch, however, the iPhone offers to delete videos after you've finished watching them.

Christopher Breen is a senior editor at Macworld and a former Sony Ericsson T616 user.



Cover Flow The iPhone has iTunes 7's Cover Flow view, giving you another way to search music.

From Here to There

The Maps program on the iPhone provides driving directions (and, in some cases, traffic information).

Internet Features

BY DAN FRAKES

Many phones can access the Internet; few do it well. And no phone has come close to approximating the experience you get on your computer. But that's the iPhone's lofty goal. Here's a look at the programs that aim to deliver that experience.



SAFARI

If you've ever browsed the Web on a PDA or a mobile phone, Safari on the iPhone will be a joy to use, although it's not without some minor limitations.

General Browsing Tap on the Safari icon on the Home screen, and a miniature version of the same browser you have on your Mac appears.

When you tap on the address bar or search field, an on-screen keyboard slides up from the bottom of the screen. As you type, Safari displays a list of sites in your bookmarks list that match your entry. The Safari keyboard helpfully includes dot (.), slash (/), and .com buttons for speeding up URL entry.

Viewing Pages

Safari lets you open as many as eight Web pages simultaneously. When viewing a Web page, you can scroll by dragging your finger across the page in the desired direction. To zoom in, place two fingers together on the screen and then spread them

apart—a sort of inverse pinch. To zoom back out, reverse the action.

Bookmarks You can save the URLs for frequently visited Web sites as bookmarks, which you manage from the iPhone's interface—you can change their names, organize them into folders, and delete them. You can also edit and organize bookmarks from your Mac via Safari: The Info tab of the iPhone settings screen in iTunes includes a Sync Safari Bookmarks option.

RSS The iPhone's version of Safari includes a functional, if basic, RSS reader. Enter the URL for an RSS feed, and Safari recognizes it as a feed and displays it accordingly: as a list of headlines, along with a two-line summary of each article.

MAIL

As with Safari, Apple has taken OS X's Mail application and slimmed it down for the iPhone. Although Mail on the iPhone pales in comparison to the version on your Mac (it's missing some features), it's quite

impressive compared with the e-mail clients on most phones.

Setup When you first set up your iPhone, iTunes will ask whether you want to transfer your existing Mail accounts to the iPhone. If you opt not to, then when you first open Mail—or if you ever tap on the Add Account button in Mail's settings (accessible via the iPhone's Settings icon)—you'll see a screen with large buttons for Yahoo Mail, Gmail, .Mac, AOL, and Other. Tap on one of the first four buttons, and you'll fill in a name, an e-mail address, a password, and a description of the account. Tap on Save, and Mail automatically fills in all the other necessary settings.

Browsing Mail To read and send e-mail, tap on the Mail button on the iPhone's Home screen. If you have multiple accounts, you'll see a list of them on the Accounts screen. In your Inbox, you'll see a preview of each message: the sender, the time sent, the subject, and a few lines of text (the number of lines depends on your Mail settings); there'll be a blue dot to the left of each unread message. Tap on a message to view it. The iPhone's version of Mail doesn't offer message threading; all messages appear in a flat list.

You can quickly delete a message with a swipe of your fingertip. However, there's no way to mark all (or multiple) messages as read or to delete all the messages in the Inbox or in a folder; you must view each message individually, and you must delete each message individually.

If a message includes an image as an attachment, you can view it right on the screen. You can view Microsoft Word and Excel, PDF, and plain-text attachments (although you can't edit them) in a viewing window that appears when you tap on the attachment.

Sending E-mail When you tap on the Reply icon at the bottom of an open message, up slides a window giving you these options: Reply, Reply All, Forward, or Cancel. When you tap on the New Message icon, you can man-

DID YOU KNOW?

If you orient the iPhone horizontally before tapping on the address bar, the Safari window goes into horizontal mode; when you then tap on the address bar, the on-screen keyboard will also be horizontal—and much larger.



The iPhone's Other Tools

Like OS X 10.4, the iPhone's Home screen features widgets, which are small applications that provide useful functions. Here's how they work.



Calculator The iPhone's Calculator widget gives you the basic tools of most entry-level calculators: the four math operators and the ability to store one number in memory. The display is limited to nine digits, and there's no comma to separate long numbers, making them somewhat hard to read. What Calculator does offer is simplicity: just press the on-screen numbers and mathematical operators to solve whatever mathematical problem you're wrestling with. If necessary, you can use the memory keys to store, add to, and subtract from the Calculator's one-number memory.



Notes The main Notes screen, used for jotting things down, looks like a piece of yellow ruled writing paper, and the only button on the screen is a plus sign at the top right, for adding a new note. To edit a note, just tap once on the note's body; the iPhone's keyboard will appear. Buttons along the bottom of the screen let you move between

notes, and e-mail or delete the current note. Notes do not sync back to your Mac, so if you want to move a note to your computer, you'll have to e-mail it to yourself. The font family and size are fixed, and there are no options for using underlines, italics, or color to change a note's appearance.



Stocks As its name implies, the iPhone's Stocks widget lets you track changes in stock prices throughout the day. If you've used the Stocks widget in OS X 10.4, you'll be right at home with this variation. The most notable change is that the iPhone's stock-price information comes from Yahoo Finance instead of Stocks.com. Tap on the small *i* icon to flip the widget over; then you can add stocks by clicking on the plus sign and entering the company's name or ticker symbol.



Weather There are some key differences between the iPhone's Weather widget and the similar widget for OS X 10.4. As with stocks, the data for the iPhone's widget comes from Yahoo, not AccuWeather.com. To view the weather in different cities, swipe your finger to the left or right to scroll. —ROB GRIFFITHS

ually enter recipient addresses or tap on the plus-sign icon to add recipients from your Contacts list.

If you want to save a message you're not finished writing yet, tap on Cancel. Instead of deleting the message immediately, Mail slides up a window where you can choose Save, Don't Save, or Cancel. Tap on Save, and the message is placed in your Drafts folder.

SMS

Like most phones these days, the iPhone includes an SMS (Short Message Service) feature that lets you send text messages and receive them from other mobile devices.

Sending and Receiving Messages

Tap on the Text button on the Home screen, and then tap on the New Message icon. Enter the recipient's mobile number, or tap on the plus-sign icon to choose an existing contact. (If you do the latter, be sure you choose the contact's mobile number, or else your message won't go anywhere.) Type your message and then tap on Send.

Text opens a screen that looks nearly identical to an iChat window on your Mac. Your message to the recipient, and any subsequent messages you send to that person, appear in iChat-like balloons on the right side; any replies appear on the left side in balloons of a different color.

Text keeps your entire SMS conversation with the other person preserved in a single screen you can scroll through. This conversation window is preserved over multiple conversations, so you can see all messages to and from a single recipient, even if they're days, weeks, or even months apart.

MAPS

Of all the Internet-enabled programs packed onto the iPhone, its mapping tool may be the most impressive.

Viewing Maps Tap on Maps on the Home screen, and you'll see a miniature version of Google Maps. Type an address or another query in the search field at the top of the screen, and then tap on Search to display a Google map with the results, displayed as one or more pushpins. Double-tap to zoom in; tap with two fingers at once to zoom out. Dragging your finger around the screen repositions the map. A traffic button—with an appropriate car icon—displays live, color-coded traffic information, although only for major roads in or near major cities.

You can also search for businesses, or even types of businesses, by entering the search term and a city and state or zip code. For

example, to find a doughnut shop near the Apple campus, you could type **doughnut Cupertino** and then tap on Search; the result is a map of the area with nearby doughnut shops displayed.

Tap on the List button at the bottom of the screen to view a list of *all* matches, sorted by distance. When you've located the desired address or location, tap on the blue arrow icon next to the location name, and a screen appears that lets you quickly view the location's address and phone number, as well as get directions to or from that location.

Dan Frakes is a senior editor at *Macworld* and a former Sony Ericsson Walkman user.

Pinching Pages In the iPhone's version of Safari, a pinching gesture zooms out on Web pages, while an inverse pinch zooms in.





REVIEW

The iPhone

Groundbreaking wireless communicator really lives up to the hype **BY JASON SNELL**

Apple has been working on the iPhone for years, and the Web has been buzzing about it for at least that long. Six months after its introduction at Macworld Conference & Expo, the iPhone has finally arrived. Although

it's not without its quirks, it makes good on the hype that surrounded it.

HEFTING THE HARDWARE

While it's as wide and as high as a full-size iPod, the iPhone is shockingly thin—less than half an inch. Yet the iPhone doesn't feel fragile. It's heavy enough to feel substantial.

As our colleagues at *PC World* have shown (see the video at macworld.com/2947), the iPhone seems resistant to scratches and drops. This is not to say that the iPhone is completely impervious to wear and tear. Because of its touch-screen interface, the iPhone's screen collects fingerprints. Though you won't notice smudges under most lighting conditions, you'll want to clean the screen regularly with the cloth that Apple provides in every box.

The screen is excellent: big, bright, and high-resolution (160 dots per inch). Digital photos and videos look gorgeous, icons are nice and bright, and text looks as if it had been printed on paper rather than drawn with pixels on the screen.

The iPhone's stereo earbuds sound good and include an inline microphone that doubles as a music controller. Unfortunately, because the iPhone's headphone jack is slightly recessed, standard third-party headphones may not fit.

Also disappointing is the iPhone's limited support for Bluetooth. You should be able to use a Bluetooth wireless headset with the iPhone, without much trouble, but the iPhone doesn't currently support Bluetooth stereo headphones, nor can it pair with your Mac.

Apple has claimed that the iPhone's battery will provide up to eight hours of talk time, six hours of Internet use, seven hours of video playback, 24 hours of audio playback, and 250 hours of standby time. Our initial testing indicates that you should get something close to that. In audio-playback mode, for example, we got from 16 to 20 hours. We'll continue our testing; stay tuned to Macworld.com to see what we find out.

THE VIRTUAL KEYBOARD

Because of its screen, the iPhone provides a tactile experience. Instead of dragging a scroll bar or clicking a mouse, you move through screens with a combination of taps, flicks, and other finger gestures. And when you need to input text, a tiny virtual keyboard automatically slides up from the bottom of the screen.

While I can't speak for accomplished thumb-typists (having never been one myself), I think most users will find that the keyboard is just fine. It does take some getting used to, however. If you slowly tap on every single letter and painstakingly backspace to correct wrong ones, you will never be satisfied. But if you ignore your mistakes and keep on typing, the iPhone's autocorrecting tools will kick in. After a few hours of use, my finger was flying over the keyboard, and I'm sure it was only roughly close to the correct letter most of the time. The iPhone correctly guessed what I meant to type, with remarkable consistency.

I do have one major complaint about the text-input interface: You can't select text, let alone copy, cut, or paste it. You might think that dragging your finger across text would select it, but that's the gesture you use to reposition the insertion point.

IPHONE



PROS: Beautiful hardware; bright high-resolution screen; elegant touch-screen interface; impressive e-mail, Web, and phone features; built-in iPod functionality; Wi-Fi networking.

CONS: Browser can't display Flash, Real, or Windows Media content; works only on slower EDGE cellular data network; limited Bluetooth support; inflexible mail and calendar functionality; inline headphone jack incompatible with many third-party headphones; can't select, cut, copy, or paste text; can't use your own ringtones; hard to enter passwords properly; text-messaging tool supports SMS but not iChat.

OS COMPATIBILITY: 10.4 (Tiger)

COMPANY: Apple, www.apple.com

PRICE: 4GB, \$499; 8GB, \$599

MORE INFO: macworld.com/2957

IPHONE CALLING

With all the attention that's been devoted to the iPhone's screen, it's easy to forget that the iPhone is also a phone—and a good one, too.

When you're on a call, tapping on the screen brings up six commands—Mute, Keypad, Speaker, Hold, Contacts, and Add Call. That last command can be confounding on other smart phones, but it's astoundingly simple on Apple's handset. Whether you've initiated or received a call, it's easy to put one caller on hold while you contact another and then bring the three (or more) of you together in a conference call. I do wish the iPhone had the kind of quick-dial feature you find on other phones, which let you map particular buttons to frequently called contacts. The iPhone can't map contacts to buttons it doesn't have, but top contacts are still too many taps away.

ONE-HANDED E-MAIL

The iPhone's Mail program is also excellent. When you first set up your iPhone, iTunes transfers all your Mail account preferences from your Mac's copy of Apple Mail. In case you need to enter additional account information yourself, Apple includes several presets for Yahoo, Google's Gmail, AOL, and Apple's own .Mac.

If you're not using any of those services, however, the setup can be a pain, primarily because of a major interface mistake: When you're adding passwords, you can't see the text you're entering. I know it's more secure that way. But given the iPhone's teensy virtual keyboard and the unpredictable character strings of decently secure passwords, it's hard to enter a password properly.

It's also unfortunate that the iPhone doesn't filter mail and doesn't have a built-in spam catcher. So if you normally rely on a client-side filtering program such as C-Command Software's Spam-Sieve (■■■■■; macworld.com/2671), you'll be stunned at the amount of spam you'll see on your iPhone. The solution: use a mail server with server-side spam filtering if you can.

THE WHOLE WEB

Apple has said that through its Web browser, the iPhone

Typing The iPhone's on-screen keyboard is awkward at first, but you'll get used to it over time.

delivers the "real Internet," not a dumbed-down version designed for mobile phones. The iPhone's version of Safari mostly delivers on that promise.

Safari on the iPhone feels like Safari on the Mac. Web pages load in full, scaled-down to fit on the iPhone's screen. Loading those Web pages over a Wi-Fi network felt about as snappy as it did on my Mac. When I switched to AT&T's EDGE digital cellular network, things bogged down a bit, but it was usable.

Still, there are some limitations to Safari on the iPhone. The biggest is that it doesn't support Adobe Flash, perhaps the most common browser plug-in in existence and the default tool for viewing online videos. The iPhone also can't stream Web audio or video in the Real or Windows Media formats.

THE IPOD REBORN

The iPhone is unlike any iPod we've seen before—but I'd guess that it's a lot like iPods to come.

Thanks to its large, high-resolution screen, the iPhone excels as a video player. At 480 by 320 pixels, its screen is the largest canvas a video iPod has ever had. (The current video iPod's display resolution is 320 by 240.) And the wide-

screen aspect ratio, while not quite a Hollywood-standard 16:9, is still better for watching wide-screen movies and TV shows than the video iPod's 4:3 ratio.

Of course, because of its limited storage capacity, the iPhone can't store a massive video library. You have to be judicious about the content you load on it. I was able to load up my 8GB iPhone with 350 songs and eight hours of video, and I still had 3GB left.

There are several things the iPhone *can't* do that the iPod can. It won't output video to a TV, for example, and its iTunes synchronization process is much more like the Apple TV's than an iPod's. I often drag and drop music and video onto my iPod when I attach it to one of my Macs, but the iPhone will sync only with a library or playlist on a specific Mac or PC.

ALL THE ICONS

It's easy to focus on the iPhone's core functions, but there are 12 other icons on the Home screen. For a look at everything from Calendar to the limited text-messaging feature, go to macworld.com/2957.

MACWORLD'S BUYING ADVICE

In terms of both hardware and software, the iPhone is truly a new creation. Some of its drawbacks (such as its lack of instant-messaging, text-selection, and Flash support) could be addressed by software updates. Others (such as its lack of support for faster cellular networks, and the absence of GPS capabilities) will have to wait for new hardware.

But the iPhone's positives vastly outweigh its negatives. It's a beautiful device with a gorgeous high-resolution screen and a carefully designed interface. Its touch-screen keyboard will please all but the most ardent BlackBerry thumb-typers, making it an excellent device for e-mail. The Safari browser cleverly makes full-blown Web pages readable on a small screen. It's a versatile audio player and a drop-dead-gorgeous video player. And, yes, it makes phone calls pretty well, too.

Simply put, the iPhone is the real deal. ☒

Jason Snell is Macworld's editorial director and a former Palm Treo 650 user.





\$SMART MONEY

{33} ways your Mac can help you
save more and spend less

No matter how much money you have, you certainly want to be sure you're managing it in the best way possible. And it just so happens that—thanks to financial software and the Web—your Mac is one of the best tools for doing so.

For many people, “managing money on the Mac” means “Intuit’s Quicken.” For them, we asked Quicken maven Tom Negrino to give us ten essential tips for any Quicken user (page 70). For other Mac users, Quicken is overkill, so we had Gina Trapani (the founding editor of the excellent Lifehacker blog) compile a list of eight Quicken alternatives (page 72). And for everyone, we have an excerpt from Mark Frauenfelder’s *Rule the Web*, in which he offers some of his favorite online-shopping tips (page 74), as well as Jay Cooke’s selection of the best sites for saving money on travel (page 75).

Illustrations by Eric Sturdevant

TOP 10 QUICKEN TRICKS

BY TOM NEGRINO

Quicken has been the default personal finance manager of Mac users for years. But despite its ubiquity, I still run across many Quicken users who aren't getting the most out of the program, because they don't know some simple tricks that can make it easier to use. Here's my top-ten list of tricks every Quicken user—from novices to experts—should know.

1 Customize the Keyboard

If you don't like Quicken's default keyboard shortcuts, change them or add your own. Just hold down the \mathbb{A} key and choose the item you want to customize from the menu bar. In the Edit Command Key dialog box, you can enter your preferred shortcut.

2 Don't Open Quicken

Need to quickly record an expense? Just tap the key you've configured to launch Dashboard, and then use the QuickEntry widget that was introduced with Quicken 2007. You can make entries in any of your Quicken accounts; those entries will be automatically imported into your account registers the next time you launch Quicken.



Keyboard Shortcuts Customize your shortcuts with Quicken's Edit Command Key.

3 Unclutter Your Categories

Quicken's categories are the key to tracking your spending. But even though some of Quicken's default cate-

gories may not work for you, those categories will still appear every time you view the Categories & Transfers window or use the pop-up category list in the account registers. Get rid of categories you'll never use by choosing Lists: Categories & Transfers: Remove Unused Categories.

4 Use Classes

Quicken makes it easy to create categories for all your financial transactions—perhaps too easy. For example, let's say you want to track individual medical expenses for you and your spouse. You could create two subcategories under the Medical category. But what about your kids? Do you really need a different Medical subcategory for each family member? If you do, and if you apply the same logic to your other expenses, you'll soon have an unmanageable number of categories and subcategories.

The smarter thing to do is to create classes in Quicken. Classes are distinct from categories, so they can further define a transaction that has already been assigned to a category. For example, you might create a class for each of your family's members. Just choose Lists: Classes, click on the New button in the Classes window, and add a new class name. Then, during data entry, you can assign a class to a transaction by appending a forward slash and a class name to the category name. For example, you'd



enter **Medical/Bob** for one of Bob's medical expenses.

Once you've set up these classes, you can easily generate a report for the entire family's medical expenses (sorting by category), another for all your expenses (sorting by class), and a third for just your medical expenses (sorting by both class and category).

5 Calculate Faster

If you want to make a quick calculation while you're entering data in the account register, you don't have to reach for the calculator on your desk or in Dashboard. Instead, Quicken's QuickMath feature gives you a simple "paper-tape" calculator (like an old adding machine) right in the account register. Here's how to use it: While you're in any field that you can enter an amount in, press an arithmetic-operator key (+, -, *, /, or =) to open the QuickMath paper tape. Enter the numbers you want to calculate, pressing an operator key between each number. When you've entered all your numbers, click on the Total button at the bottom of the paper tape (or press enter). Quicken does the calculation and places the result into the field.

6 Don't Skip Backups

Your Quicken data file is one of the most important files you have, and a good backup is a must. Quicken will back this file up automatically, but you can customize the backup location. A second hard drive is ideal. Choose Quicken: Preferences, and then go to the File Backup pane. Make sure that the Automatically Back Up The Data File To Disk option is selected; then click on Choose and navigate to a folder on your external hard drive. If you have a .Mac account, you can also automatically back up to your iDisk. Security is ensured because the backup file is compressed and encrypted with a password.

7 Set a Schedule

A good way to keep on top of your finances is to set aside the same time each week to do your bills. If you use online banking, you can increase efficiency by having Quicken download your statements and update your accounts each week before you begin. Choose Online: Scheduled Updates; then, in the resulting dialog box, set the day of the week and the time for the automatic update. At that time, Quicken will launch silently in the background, download your financial data, and quit. When you're ready, you just open Quicken and work with your updated information.

8 Reconcile Instantly

Reconciling your accounts can be a pain, but if you use online banking, it can be almost painless. All you need to do is turn on automatic



Scheduled Updates Download account data from your bank automatically; your information will be up-to-date the next time you launch Quicken.

reconciliation. In Quicken's preferences, open the Auto-Reconcile pane. Choose the account you want to automatically reconcile (it must be a checking, savings, or credit card account) from the pop-up menu; then select the Enable Auto-Reconcile option. I also suggest that you select the Auto-Reconcile Without Reminding Me option. That way, when your Quicken balances and your bank's balances match, you won't even see the Reconciliation dialog box.

9 Make Online Payees Smarter

When you download transactions, they often appear with somewhat inscrutable payee names. For example, when I buy groceries with my debit card, the charge shows up with this payee name: Safew0000000000CA 1724. Quicken's Smart Payee feature can

help. In the Download Transactions window, select the payee name and type over it with a new name (I chose **Safeway**); you can also make changes in the Category and Memo fields. Then click on the Record button. Quicken saves the new Smart Payee name for the transaction, and replaces the old name with the new one in all that payee's past transactions. In future downloads, the original payee name will be automatically changed to the Smart Payee name.

10 Track Your Inventory

Your money is important, but so is your stuff. Use the included Quicken Home Inventory program to list all of your possessions for insurance purposes. Integration with iPhoto allows you to keep photographic documentation of your valuables. Just as important in the event of a disaster is being able to access your important papers; the Emergency Records Organizer lets you enter data and print a report containing emergency contacts, financial and insurance information, vital documents such as birth certificates and your will, and more. You'll find both of these programs in the Activities menu.

Tom Negrino is the author of a number of books on Quicken, as well as a coauthor of *Dreamweaver CS3 Visual QuickStart Guide* (Peachpit Press, 2007).

Date	Number	Payee/Category/Memo	Payment	Cr	Deposit	Balance
5/14/07	WITHD	WF BANKING THRU SOFTWARE-FEE 121	3.00	C		4,663.09
5/14/07	WITHD	WF BILL PAY THRU SOFTWARE-FEE 12	6.95	C		4,656.14
5/16/07	7463	Corner Drugstore	57.27	C		4,598.87
5/18/07	WITHD	SOFTWARE ONLINE TRANSFER (Credit Card)	355.19	C		4,243.68
5/21/07	7465	Jennifer Smith	40.00	C		4,203.68
5/21/07	ATM	ATM Withdrawal	100.00	C		4,103.68
5/22/07	WITHD	Mercury Mutual Fund (Jim's 401k)	100.00	C		4,003.68
5/22/07	WITHD	Worldwide Mutual Fund (Jim's 401k)	150.00	C		3,853.68
2/1/07		Client Deposits				
						\$3,853.68

Fast Calculations Quicken's built-in QuickMath feature is a simple, paper-tape-style calculator.

8 GREAT QUICKEN ALTERNATIVES

BY GINA TRAPANI

Quicken may be the most popular finance manager on the Mac, but because it has many features that a lot of us never use, it can be overkill. Fortunately, there are several options that are simpler to use, less expensive, and/or more focused than Quicken. If you don't want everything Quicken offers, one of these eight Quicken alternatives could be all you need.



1 Buddi

Buddi is a stripped-down financial manager that gets back to basics. Set up your accounts, and then use a simple form to enter and categorize transactions. The transaction category list also acts as your budget—for example, you enter your anticipated income in the Salary category under the My Budget tab. Buddi does not support multiple budgets or online banking; however, an available plug-in imports CSV data files, a format most banks offer for transaction downloads (payment requested; Wyatt Olson, buddi.sourceforge.net/en/).

2 Budget

If sticking to a budget is your first priority, Snowmint's Budget is for you. Budget's interface nicely illustrates the old-fashioned envelope system of budgeting: each of your assets and expenses is represented by

an envelope with an amount written on it. When you get paid, Budget automatically distributes your money into each envelope. And after you've paid all your budgeted expenses, Budget shows how much cash you've got left, in a special envelope labeled Available (\$30; Snowmint Creative Solutions, www.snowmintcs.com).

3 Burn

The first step to getting your spending under control is to track where every penny goes. That's the sole purpose of Burn. You're not going to find online banking or extensive reporting in Burn—you simply enter the item you spent cash on, the date, and the amount, and assign a category; Burn can then print out an attractive report that totals your expenditures (free; Blackhole Media, www.blackholemedia.com).

for roommates, groups of friends, teammates, or coworkers. Full text-messaging support makes tracking transactions on-the-go easy. For instance, when you're buying movie tickets for yourself and your pals at a theater, text Buxfer the amount, the category, and your friends' names; the expense goes into your Buxfer account on the spot (free; www.buxfer.com).

5 Debtinator

You've got debt spread across three credit cards, a mortgage, a student loan, and a car loan—all at different interest rates and fees. How much should each monthly payment be? Debtinator helps you answer that question. Enter your current assets, income, and expenses into Debtinator, as well as each of your loan and credit card balances, interest rates, and fees. Debtinator calculates how long it will take to pay down the debt if you follow different payment strategies—such as the lowest-interest-payment plan, the minimum-payment plan, and the minimum-fee-only plan—and then it recommends your “best bet” strategy based on your income, expenses, and interest rates (\$15; Basset Software, www.bassetsoftware.com).



Buxfer Upload your transactions, then use Buxfer's social networking tools for tips and discussion.

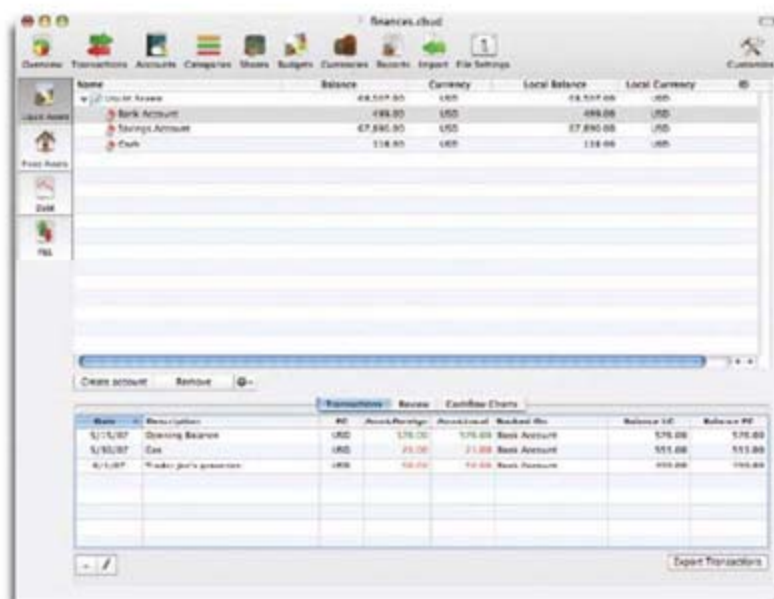
4 Buxfer

Web-based Buxfer lets you tag transactions with keywords and generate reports. But Buxfer's killer feature is the ability to track who paid for what part of a shared dinner check, grocery bill, or gift—it's great

6 FinanceToGo (★★★★; macworld.com/2505) is based on the principle of double-entry accounting, so it feels better suited to business than to personal use. Double-entry accounting dictates that money move from one account to another in every transaction—so FinanceToGo treats every payee as an account, even your grocery store and your landlord. The three main reports that FinanceToGo offers also seem geared toward business: a balance sheet, a profit-and-loss statement, and an expense overview (\$45; Fastforward Software, www.fastforwardsw.com).

7 iBank 2 (★★★★; macworld.com/1705) is a solid alternative to Quicken, with a few unique extras. It lets you track your accounts, create multiple budgets, customize its cate-

gory list, and manage scheduled and recurring transactions. You can also download stock prices directly into the program. If you can't stand your bank's cryptic one-line transaction descriptions, you'll love the Smart Import Rules feature, which applies changes to transactions that meet specified criteria. You can also assign an image to a transaction—in case you need a photographic reminder of why those new sneakers



FinanceToGo If you're accustomed to the double-entry accounting many businesses use, FinanceToGo's interface will seem familiar.

were worth the \$120 you spent on them (\$50; IGG Software, www.iggsoftware.com).

8 Wesabe The Web-based Wesabe combines money management with social networking. Once you become a Wesabe member, you upload your bank-account transactions either manually or automatically. You can then tag these transactions with keywords, and Wesabe will associate any future transactions involving the same payee with those keywords. Additionally, the Wesabe community will offer you tips about your spending habits. For example, next to the entry for a purchase at Trader Joe's, a fellow Wesabe member might suggest a way to save \$5 on groceries. You can also create goals in Wesabe ("buy a MacBook," say, or "pay off credit cards"), and then browse through the goals other members have set; if you find someone with similar aims, you can compare notes and swap advice. Wesabe keeps your personal banking information private but does aggregate and display community data—such as how much Wesabe members spend on average at the Apple Store (free; www.wesabe.com).

Gina Trapani is the founding editor of the Lifehacker blog (lifehacker.com) and the author of *Lifehacker: 88 Tech Tricks to Turbocharge Your Day* (Wiley Publishing, 2007).

When Quicken Isn't Enough

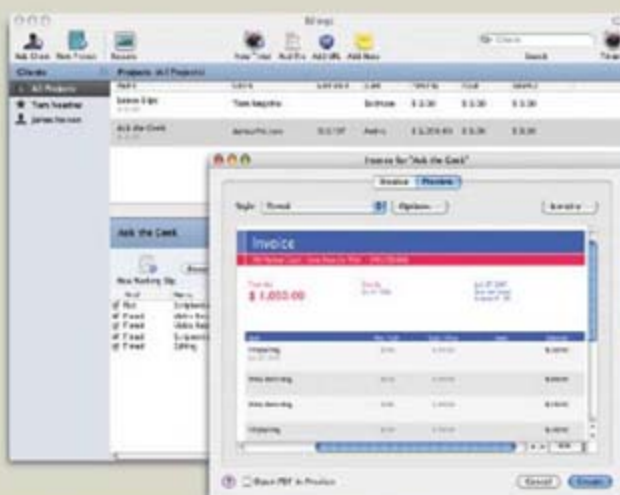
Quicken can't do a couple of things that you'll need if you're self-employed or you run a side business: it can't create invoices or track your receivables. You could try QuickBooks, but that's sometimes overkill for a small operation. Here are four alternatives.

There are several good programs that can handle invoicing and billing. Marketcircle's **Billings** (★★★★; \$59; macworld.com/2658), for example, sports a clean, intuitive interface, is easy to customize, and has a great invoice editor.

Pretty Good Software's **iRatchet** (\$45; www.prettygoodssoftware.org), another general-purpose invoicing and billing system, costs a bit less than Billings; integrates with Address Book, iCal, and Mail; supports multiple tax rates, multiple timers, and multiple client projects; and tracks mileage and payments.

If you want to both keep track of the services you perform and create invoices, without a lot of other bells and whistles, Clickable Bliss's **Billable** (\$25; www.clickablebliss.com) is a good, inexpensive choice. It lets you set different hourly rates for a client; you can also create and customize invoice templates in HTML, and then print them as PDFs.

And for collaborating with many people on a file-based project and billing everyone's time, check out IGG Software's **iBiz** (★★★★; \$50; two-client server version, \$90; macworld.com/2222). It lets you associate specific files with a project and then tracks the total time spent working on those files.—TOM NEGRINO



Billings Marketcircle's invoicing program comes with a good selection of easily customizable templates.

6 TIPS FOR SAVVIER SHOPPING

BY MARK FRAUENFELDER

I made my first online purchase—a pound of coffee beans—almost 20 years ago, on a now-defunct online service called Prodigy. Since then, I've bought tens of thousands of dollars' worth of products online. The Web is a marvelous place to shop, especially if you know what you're looking for and stay alert for scammers.

1 How can I shop online without having to use my credit card number?

If you're a Citi, Bank of America, or Discover cardholder, you can shop online and never give out your real credit card number. These three card companies let you use what are called "virtual credit card numbers" to make online purchases.

Bank of America cardholders who log in at the bank's Web site, for example, can click on the ShopSafe link and enter a spending limit and an expiration date into an online form. Bank of America then generates a unique and temporary 16-digit number that looks and works exactly like a regular credit card number, with one important difference:

it can be used for a transaction only up to the limit specified. If a hacker steals the number and tries to use it to make a purchase over that limit, the credit card company will reject the transaction.

2 How big is the product I am buying online?

When I'm shopping online for a new camera or another box-shaped item, I have trouble visualizing its size. For example, the Exilim EX-Z70 digital camera is 95.2mm by 60.6mm by 19.8mm. That doesn't mean much to me. A site called sizeasy (sizeasy.com) lets you enter the dimensions of the gadget you're interested in and compare it to other common objects (a deck of cards, a box of matches, a CD case,

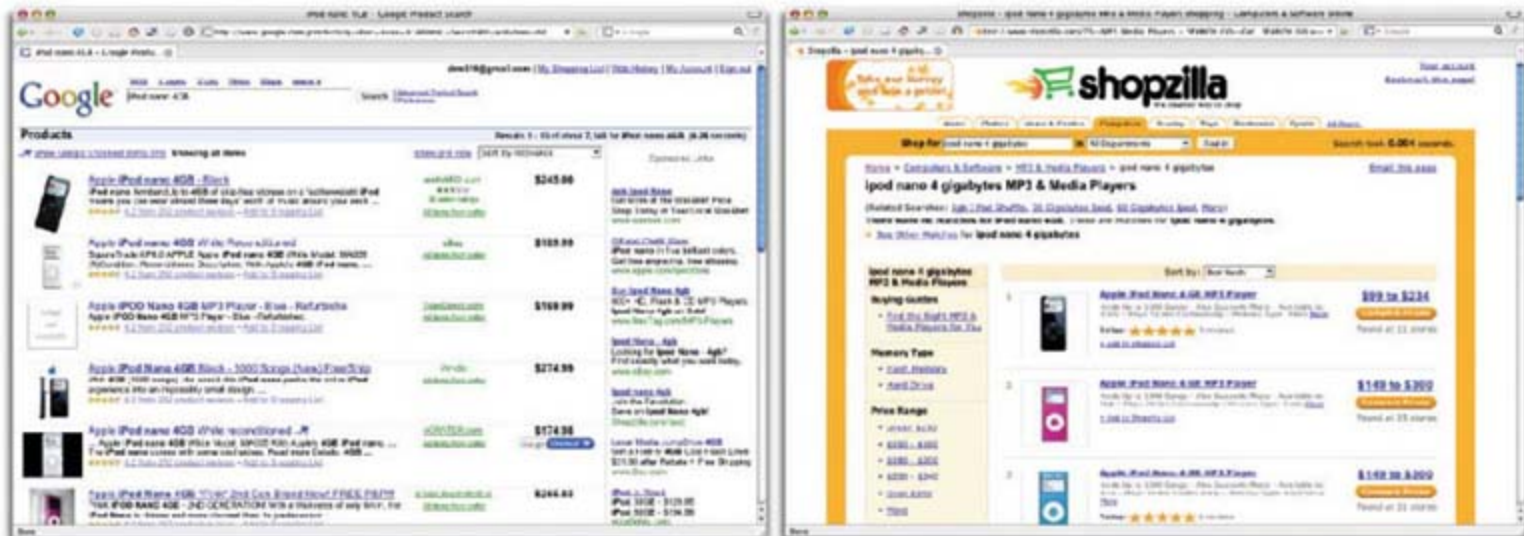


and so on), so you can see how large or small it really is.

3 What's the best price-comparison service?

My two favorites are Shopzilla (shopzilla.com) and Google Products (google.com/products).

Shopzilla's search functionality is excellent. For instance, if you enter **Palm**, Shopzilla displays a list of categories to narrow your search down to PDAs, home lighting (think palm-tree lamps), bedding, outdoor furniture, skin-care products, candles, sporting



Shopping Comparisons Google Products and Shopzilla are my favorite shopping comparison sites. Google (left) often finds better deals, but Shopzilla (right) is easier to use.

equipment, or gloves and mittens. When you drill down to the product you're interested in, Shopzilla displays the prices from a list of online retailers, highlighting one as the Smart Choice—generally the lowest-priced item from a highly rated merchant. Best of all, you can see the shipping charges up front: Enter your zip code, and Shopzilla will include sales tax, shipping, and handling costs in the price comparisons.

Google Products is not as easy to use as Shopzilla, but if you're willing to dig around, you can find some great deals. For instance, I was interested in a portable DVD player for my kids. The best deal on Shopzilla (including tax and shipping) was \$112.91. Google Products found a store selling the same item for \$54.99. But after I filled in my address information and selected my method of payment, it tacked on a shipping charge of \$29.99. I quickly backed out and looked at what else Google Products had turned up. Best Buy (bestbuy.com) had the player for \$69.99, and shipping was about \$10, making the total amount \$5 less than the first store's.

4 How can I find out whether an online retailer is reputable?

Most price-comparison services have merchant ratings on their sites, but it doesn't hurt to also check an online store's report at ResellerRatings (resellerratings.com). You'll not only see the store's scores (from 1 to 10) for prices, shipping and packaging, customer service, and returns, but also be able to read firsthand reports from customers who've made purchases from that online merchant.

Other sites you can check include BizRate (bizrate.com), BBBOnline (www.bbbonline.org), and Ripoff Report (ripoffreport.com).

5 How can I get promo codes when I shop online?

You have probably seen that field marked Promo Code or Coupon Code in shopping-site checkout sections. Usually, you get one of these numbers from an online retailer who wants you to shop at its store. Another way to get

Cooke's Tour: 5 Top Travel Sites

Jay Cooke is an editor for the guidebook publisher Lonely Planet and a former editor for the travel magazine *Via*. Here are five of his favorite Web sites for planning and saving money on travel. You can find more of his travel tips at www.outwester.com.

1 Airfarewatchdog (www.airfarewatchdog.com)

"Airfarewatchdog sniffs out the best fares du jour," says Cooke. Enter a departure airport, and Airfarewatchdog will return a list of all the current specials. "They dig very deeply into the sites that are out there to pull out the real unique bargains, and they check with the airlines that aren't affiliated with Orbitz or Expedia, like Southwest and JetBlue."

2 BiddingForTravel.com (www.biddingfortravel.com)

If you want to bid on a hotel room, Cooke says that you should start here. "When you bid on airfare, you don't have much control over routing, and you can be dissatisfied," he explains. "With hotels, there are fewer variables. BiddingForTravel.com allows people to post recent successful bids on properties by location. It also has a really good FAQ to help you figure out the art of bidding."

3 CouchSurfing (www.couchsurfing.com)

"People who love to travel often love travelers, and they want to interact with people from all around the world," says Cooke, explaining the appeal of CouchSurfing.com, a global network of independent travelers who agree to let one another stay in their homes gratis. "Free is my favorite price. You might have to wash your new pal's dishes, though."

4 Smarter Travel (www.smartertravel.com)

"Smarter Travel is a good place to go for steady, consistent deals," says Cooke. "It has a booking-engine comparison site where you input your departure and arrival cities and dates, and it will then search the big search engines, as well as places like Kayak.com and UltimateFares. You need to look at as many travel sites as possible, because they all are just brokers; even if one sells out of a cheap fare, the other might still have it."

5 VRBO (www.vrbo.com)

"Skip the hotels and become a temporary resident," says Cooke. VRBO (Vacation Rentals by Owner) lists more than 75,000 homes worldwide, and makes a great option for families. "With VRBO, you get to live like a local around the world. I swear by it. I stayed for a week in an efficiency apartment in Paris when my wife was pregnant. We were able to save 25 euros a day by cooking our own breakfasts." —MATHEW HONAN

them is by going to CurrentCodes.com and searching for the name of the merchant. You can also browse for coupons by product category.

6 How can I use a mobile phone to check prices when I'm in a store?

The next time you're out shopping and are about to buy a big-ticket item like a TV set or a camcorder, pull out your Web-enabled cell phone and do a little online comparison shopping. Download the Scanbuy Shopper application onto your phone by entering your phone carrier, e-mail address, and phone number at scanbuyshopper.com. The application will be sent to your phone. Once you install it, click on Check Price and enter the bar-code

number of the product you are thinking of buying. You'll see the best available price (for both new and used products), links to reviews, and product information. If you have the nerve, you can show the results to the salesperson at the store and ask him or her to match the price.

Mark Frauenfelder is the founding editor of Boing Boing (boingboing.net) and the editor in chief of *Make* magazine.

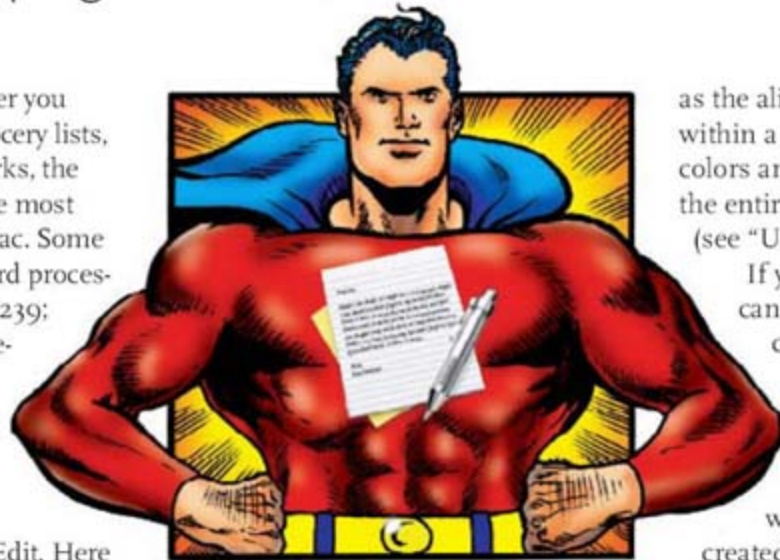
By the Book This section is an excerpt from *Rule the Web*, by Mark Frauenfelder (2007; reprinted by permission of St. Martin's Press).



Flex TextEdit's Powers

Inside eight of this program's most overlooked abilities **BY KIRK MCELHEARN**

Everyone writes. Whether you draft reports, make grocery lists, or author scholarly works, the tool you use for text may be the most important program on your Mac. Some people need a full-featured word processor, such as Microsoft Word (\$239; www.microsoft.com/mac), especially if they use advanced features like revision tracking, comments, or footnotes. But you already have a capable word processor that might fit your needs—Mac OS X's TextEdit. Here are some of the surprisingly advanced things it can do.



1 Work with Word Files

If you receive Word files from colleagues or friends, and you don't own Microsoft's ubiquitous word processor, TextEdit makes it possible for you to open and in many cases edit those documents. Since OS X 10.3, TextEdit has been able to open and save documents in Word (.doc) format. The version that comes with OS X 10.4 can also handle Word XML (.xml) format.

When you open a Word document in TextEdit, you will see text, and even tables, with their original formatting. However, TextEdit won't display graphics, footnotes, endnotes, headers, or footers (see "From Word to TextEdit"). It won't display tracked changes, but it will show comments at the end of the document. And if the document contains a table of contents or any other linked or repeating text that uses Word's field codes, you will see some strange numbers and letters in the text (for example, `PAGEREF _Toc1153167 \h 6`).

When you're done working on a document, select File: Save and choose from the options in the File Format pop-up menu. Word Format is compatible with Word 2004 and earlier on the Mac, and Word 2003 and earlier on Windows. Word XML Format is compatible with Word 2007 for Windows or later. Your best bet is often the Rich Text Format (RTF) option, which almost any word processor can read.

2 Create Tables

Say you want to make a list of items you're selling on eBay, showing their names, conditions, and prices, as well as some notes for each item. You could format this information with tabs, but it won't look perfect, since tabs can float around when you edit the text. A table ensures that each section stays in place, making the text easier to read and edit. No problem: TextEdit does tables, too.

Choose the buried Format: Text: Table command to display the Table palette. Use this tool to determine the number of rows and columns, as well

as the alignment of text and its position within a cell. You can also set border colors and pick colored backgrounds for the entire table or for individual cells (see "Uncover the Table Tool").

If you select multiple cells, you can merge them (creating a single cell from two other cells, for instance) or split them (if you have previously merged them). You can also nest tables—that is, add a table within a table cell. Once you've created your table, just click inside a cell and start typing; you can format text within each cell as you like.

3 Make Formatted Lists

Lists keep you on track. Whether your list is a breakdown of the day's tasks or the chapters of a book, special formatting can make it easier to scan by organizing items and subitems. TextEdit offers several automatic list formats, and you can also create custom prefixes, suffixes, and more.

First, make sure you're in Rich Text mode. Choose the Format menu; if you see Make Plain Text in that menu, then you're in Rich Text mode. If not, choose Make Rich Text, or press `⌘-shift-T`. If you don't see a ruler at the top of the TextEdit window, press `⌘-R`.

This ruler contains several pop-up menus, including Styles, Spacing, and Lists. The Lists menu lets you choose from a number of list prefixes—letters, numbers, bullets, dashes, and more. Choose one of these and start typing, or choose Other to set your own prefixes.

When you reach the end of an item, press return and type the next item.

You'll see that each line adopts the formatting you selected. What's more, if you chose letters or numbers as prefixes, they will increment with each new line. To turn off list formatting, press return twice at the end of a line; this returns you to normal text mode.

4 Find What You Need

TextEdit, like all text editors and word processors, has a Find function that lets you search for and replace text. This is useful, for example, if you need to replace every instance of the word *email* in your document with *e-mail*. Press ⌘-F to display the Find dialog box, enter the text you're seeking, enter a replacement, and then click on Replace All to substitute one word or phrase for another. This dialog box also has some hidden functions.

For instance, what if you just want to see all occurrences of your search string? Hold down the control key, and the Replace All button changes to Select All. Click on this button, and TextEdit will highlight every occurrence of the text.

You can also use the Find box to find and replace text within a selection. If you want to replace all occurrences of a certain word in one or two paragraphs, for example, select those paragraphs. Then, in the Find box, enter your text strings in the search

Great TextEdit Add-Ons

While TextEdit is certainly more powerful than most people realize, it may not have every feature you want. Here are some tools that can fill the gap.

WordService TextEdit's text-manipulation features do not include such niceties as the ability to quickly capitalize entire words, replace straight quotation marks with curly ones, sort paragraphs, remove line breaks, and more. Fortunately, Devon Technologies' free WordService (www.devontechnologies.com; macworld.com/2828) adds a slew of text-tweaking features to the OS X Services menu (TextEdit: Services).

Use this menu (or keyboard shortcuts) to insert dates in any of several formats, indent text, or trim line endings in files that have extra spaces (these often show up in text from e-mail messages).

NanoCount Whether you need to tally your word count for a class assignment or for National Novel Writing Month (www.nanowrimo.org), TextEdit's lack of a word-count feature can be a pain. Paul Gorman's free NanoCount (macworld.com/2829) fills the void by providing a small floating window that regularly updates the word count of your frontmost TextEdit document. You can even set a target word count, and a progress bar will show how close you are to your goal.

Nisus Thesaurus The free Nisus Thesaurus (macworld.com/2830) for OS X 10.3.9 and later, from Nisus Software, gives you a multitude of ways to find the right word. Open it as a stand-alone application, or just select a word and access the tool through the Services menu (TextEdit: Services: Nisus Thesaurus). Instead of offering only synonyms and antonyms, Nisus Thesaurus gives you the option to see words that are similar to or the opposite of, or more general or more specific than, your word. You can also look at words that your word forms a part of (for example, *bed* and *bedstead*), and more. Built around the WordNet database (macworld.com/2831) and containing more than 120,000 words, this tool offers unique ways of finding the mot juste.



and replace fields. Hold down the option key, and the Replace All button changes to In Selection. Click on that button, and the find operation will look through only the selected text.

5 Work with Styles

Styles make document formatting more consistent, streamline the process of tweaking your text's look, and make it easy to update formatting. (For more about styles, see "Save Time with Word's Styles," macworld.com/2827.) Use the Styles menu on the ruler to put styles into action in your TextEdit documents.

The Styles menu contains some basic character styles, such as Bold, Italic, and Shadowed—but you can do much more complex formatting with *paragraph styles*, which contain font, formatting, alignment, and line-spacing information. For example, you needn't fuss over formatting addresses each time you write a formal letter—just make a style with all the settings and apply it whenever you need it.

To create a style, you format a paragraph, select its text, and then choose Other from the Styles menu. Select Add To Favorites; then, in the sheet that appears, enter a name and choose from a couple of other options. If you select Include The Font As Part Of



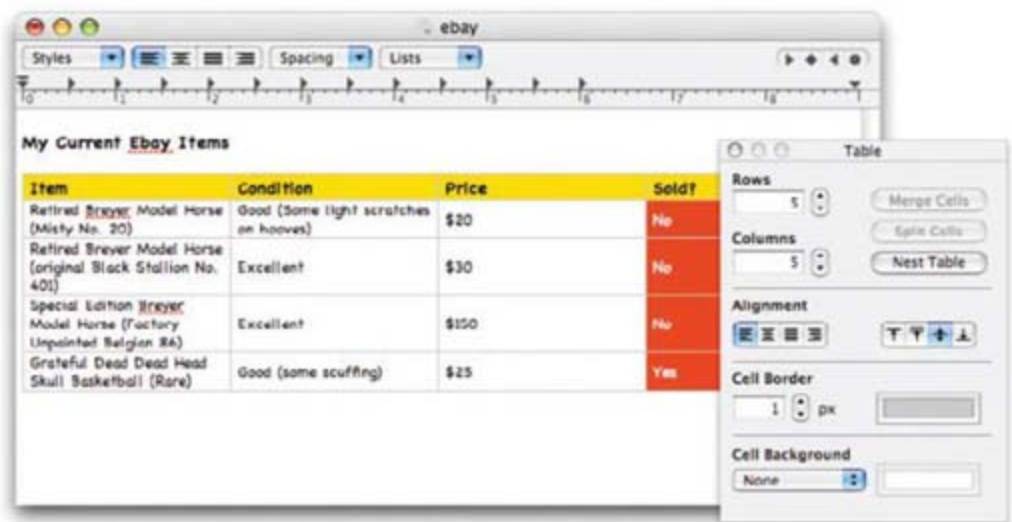
From Word to TextEdit When you open a Microsoft Word document (A) in TextEdit, you'll find that most text formatting remains, while graphics and page numbering get lost in translation (B).

The Style, your new style will apply the font along with the character style, alignment, and spacing. Selecting the Include The Ruler As Part Of The Style option will save tabs and margins along with your formatting. In most cases, you'll want to select both options. Once you've added a style, it will appear in your Styles menu. Just select some text and choose the style to apply the formatting.

6 Select Exactly What You Want

Do you need to italicize a bunch of nonconsecutive words? Double-click on a word to select it, and then hold down the ⌘ key and double-click on another word. This highlights the two words, no matter where they are. You can do the same thing with longer chunks of text by clicking and dragging: select one sentence here and another there, and then apply any formatting you want.

Another trick is to select a rectangular area—this is useful if you want to select one column of a table or a tabbed list, or if you'd like to remove



Uncover the Table Tool It is possible to create tables in TextEdit if you know where to look. Select the Format: Text: Table menu item to access all the options.

a column of angle brackets (>) in text you pasted from an e-mail message. To do this, hold down the option key and drag around the area you want to select; this highlights the text within that area.

7 Include Active Hyperlinks

Active hyperlinks in documents provide a real convenience. You don't

have to copy and paste these addresses into your browser to see the Web page; just click on them and they open.

To create an active hyperlink, type the name of a Web page, select it, and choose Format: Text: Link. Type in the URL, and then click on OK. To edit or remove the URL later, control-click on the link and select Edit Link, and then change or delete the link in the sheet and click on OK. Note that you can also use this contextual menu to open a URL quickly even when it's not an active link. (It must be a complete URL—<http://www.macworld.com>, for example.) Select the address, control-click on it, and from the menu choose Open URL.

TRY THIS

Handy Mail Tips

Whether you're reading, composing, or searching messages, e-mail dominates the typical workday. These tips can make dealing with Apple's Mail (bundled with Mac OS X 10.4) a little easier.

Search Swiftly Looking for all the messages from a particular e-mail address? It's not necessary to type or copy and paste the address into the search field—just drag a message from that person into the search field. When you do, Mail automatically extracts the address and starts the search as soon as you release your mouse button.

You're not limited to looking only for messages from the chosen e-mail address. Mail remembers which settings you used the last time you searched (for example, Entire Message, From, To, or Subject). When your results appear, take a quick look at which button is selected above the message list and click on a different one if necessary.

Try Some Shortcuts When you're reading a message, hover the cursor over the address or contact name to reveal a small white triangle. Click on this to access a pop-up menu full of helpful options. Choices include Create New Smart Mailbox, Spotlight e-mail address (to find all messages received from and sent to a particular address), Add To Address Book (to add the addressee to your contacts), and more.

Prune Your Recipients List Mail simplifies addressing your e-mail messages by autocompleting some addresses for you. But what if Mail keeps putting in an old one? Choose Window: Previous Recipients to see a list of all the addresses to whom you've sent e-mail messages. Select the ones you'd like to remove, and click on the Remove From List button. The selected addresses should no longer appear when you begin typing an e-mail address. —CHRISTOPHER BREEN AND ROB GRIFFITHS



8 Autocomplete Complex Words

Have you forgotten how to spell *sesquipedalian*? Rather than going to a dictionary to look it up, just start typing the beginning of the word (*sesq.* for example) and then press the escape key. TextEdit displays a pop-up menu showing all the words that begin with those letters in the built-in OS X dictionary. You can use the up- or down-arrow keys to navigate the list, and then press return or tab to have TextEdit complete the word. Type as many letters as you can at the beginning of a word to get the shortest possible list of choices. ✕

Kirk McElhearn writes about Macs, OS X, iPods, and more. Check out his Web site, Kirkville (www.mcelhearn.com).

ROUTINE ← MAINTENANCE

NEXT SERVICE DUE
www.crucial.com
Date: / / RAM: / GB

A simple RAM upgrade saves money, boosts Mac performance and prepares you for the long haul.

We know you love your Mac—
let Crucial help you get the most miles out of it!

A simple RAM upgrade from Crucial can be one of the most affordable, effective ways to improve Mac performance,

as it readies your system to handle demanding software, the latest media applications, or a new operating system.

You can start with our Crucial Memory Advisor to find a guaranteed-compatible upgrade in just 3 clicks.

Simply tell us what kind of Mac you own, and we'll tell you which memory upgrades will work. Plus, it's backed by our excellent service and support, a limited lifetime warranty, and shipping is free!

It's the right time to do a RAM check.

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Create Perfect Playlists

Take your mixes to the next level with these tips **BY MATHEW HONAN**

In the 1980s, the cassette tape ruled. And while the medium had its share of problems—underwhelming sound quality, constant rewinding and fast-forwarding, and the inevitable snag—it did pave the way for an entire generation of personalized mix tapes. You may not see tape mixes around much anymore, but the concept lives on in the form of playlists.

Creating a playlist in Apple's iTunes is easy. Building a good one, however, is considerably more difficult. By following a few simple strategies, you can make sure that your mix will be the hit of the party.

Building a Mood

To create a great playlist, it helps to think like a DJ. "The first and most important thing is to decide the mood you want to convey," says San Francisco-based DJ Jason Knight. "Then decide if it's appropriate for your audience." In other words, when you're putting together a romantic mix for your sweetie, Justin Timberlake's "What Goes Around" (with its theme of karmic justice wrought upon a cheating ex) probably strikes the wrong chord.

So how *do* you create an appropriate playlist? Let's say you're throwing a casual dinner party for a few friends. "Begin by searching your library for music that creates a mood that's uplifting, inviting, relaxing but not tired," says Knight. "Generally you will want to keep the tempo down." Of course,



Fast Filtering Simply highlight a few tracks in iTunes, and the helpful program The Filter will use recommendations in its database to create a new playlist populated with songs from your library.

searching through a large library for just the right track can be frustrating. But adding mood information to your tracks' metadata can ease the process.

Tag Your Tunes To begin, highlight a track in iTunes, press ⌘-I, and select the Info tab. A good place to add mood metadata is in the Genre field, as this information is already subjective. And since you can enter multiple words into this field, you need not remove pre-tagged categories such as Jazz or Alternative & Punk. Simply tack on your own descriptor, such as Relaxing or Energetic.

Create the Playlist Once you're done putting in your tags, you can easily locate tracks by mood. To find mellow tunes, for instance, go to your music library and type **relaxing** in iTunes' search field. This will reveal all the tracks you've tagged as Relaxing. Select the ones you want, and then choose File: Create New Playlist From Selection to create a playlist. If the songs you tagged don't

appear, make sure the Genre column is visible; right-click (or control-click) on the columns at top, and select Genre from the list. To build smart playlists based on mood, select File: New Smart Playlist, set the criteria to Genre Contains, and type your tag in the text box.

Keeping the Beat

When you hear DJs switch seamlessly from one track to another, odds are they've matched the beats. DJs accomplish this by altering a track's tempo so that when one song ends and the next begins, the tempo doesn't change, and everyone keeps dancing. An easier way to do this is to queue up multiple songs with the same or a similar number of beats per minute (bpm).

Sometimes you'll find a track's bpm count included in the metadata, but

playlist Want more tips on digital music?

For iPod- and iTunes-related expert advice and breaking news, as well as reviews of all the latest gadgets, check out Playlistmag.com.

FIND IT ONLINE Add audio clips to your playlists at macworld.com/

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more often you'll have to get it yourself. To start, check BPMDatabase.com, which features beat information for more than 20,000 songs. If your song isn't there, you'll have to count beats. Doing so is easy, if somewhat tedious. Use a bpm counter, such as Oatbit's free ltjBPM (macworld.com/2852).

After you figure out a song's beat count, go to the Info tab (⌘-I) and type it in the BPM field. Once you're finished, you can create smart playlists based on tempo. For instance, you might want to make a high-energy mix featuring songs with bpm counts between 120 and 140. To do that, create a new smart playlist, set the parameters to BPM Is In The Range, and enter the numbers **120** and **140** in the appropriate fields.

Getting Outside Help

What with counting beats and tagging songs, building a playlist can take a lot of time and effort. Luckily, plenty of free programs can help. Some are just good for inspiration; others will actually build a playlist for you.

The iTunes Store If you need some playlist ideas, look no further than the iTunes Store. iMixes (found by navigating to the site's Music section and looking under the More In Music header for

iMix) are playlists created by your peers. Look at Top Rated or Most Recent mixes, or search for a particular genre or song. If you like an iMix, you can often download all the songs in one fell swoop by clicking on the Buy All Songs button. (If you don't see a Buy All Songs button, you can still buy individual tracks.) And if you'd like to upload your own iMix, select one of your playlists in the iTunes Source list, click on the arrow that appears to the right of its name, click on Create iMix, and follow the instructions from there.

If you don't find any iMixes to your liking, go back to the Music section and check under the More In Music header for Celebrity Playlists and iTunes Essentials. Major musicians created many of the Celebrity Playlists themselves, and they often include hidden gems you may never have heard. The artist- and genre-based playlists under iTunes Essentials attempt to provide the most important tracks from an artist's oeuvre or the defining anthems from a musical era (such as '80s Pop).

Playlist Builders A different approach is to try a program that actually creates playlists for you. After you download MediaStrands' free MyStrands ([\[mystrands.com\]\(http://mystrands.com\)\), for example, it runs in tandem with iTunes, recommending songs you might like based on what you're listening to at the moment. If you click on the Playlist Builder button \(the icon resembles a stack of CDs\) and enter song, artist, album, or playlist names from your iTunes library, MyStrands will use that information to create a custom playlist from your library of tracks.](http://www</p>
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Exabre's free program The Filter (www.thefilter.com) generates a playlist for you based on seed tunes you select in your library. Simply highlight three songs in iTunes, click on the large F button in The Filter's floating window, and the program creates a new playlist populated with songs from your library that it thinks will be complementary (see "Fast Filtering"). It can also recommend other songs you might like to purchase for your playlist from the iTunes Store.

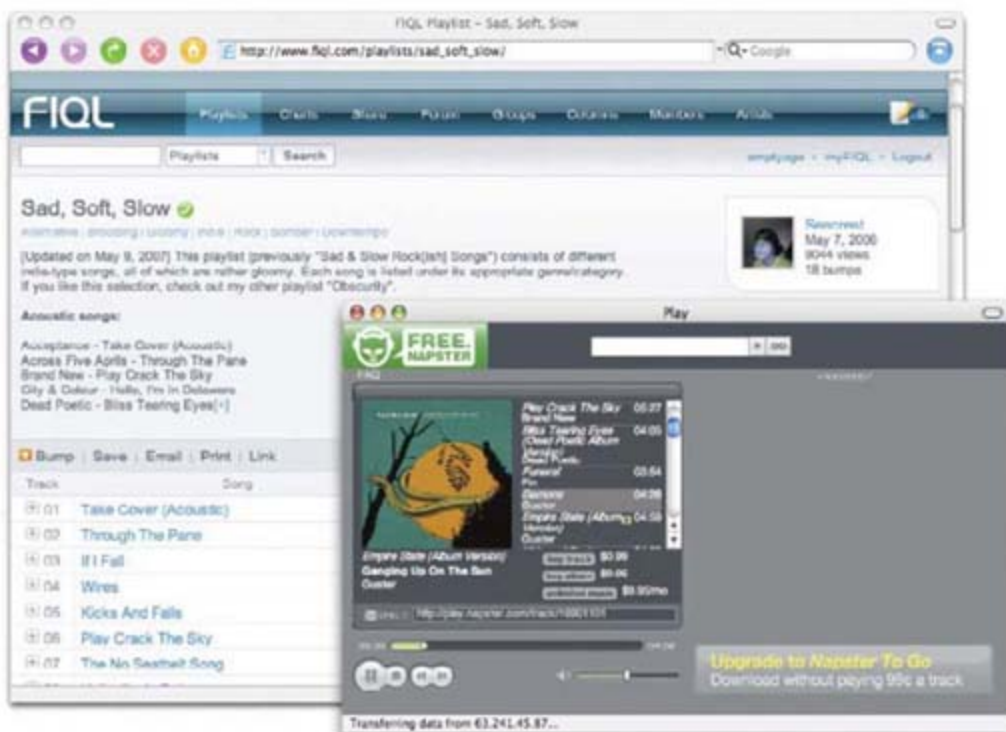
Social Networking If you prefer to rely on the wisdom of others, look at services with social networking features. The free iTunes plug-in iLike (www.ilike.com) uploads your playlists to iLike's servers and stores them in your profile. Friends can view your playlists, play samples from those tracks online, and buy them from iTunes. Likewise, you can access your friends' playlists to browse for ideas or, er, "borrow" the entire list.

FIQL.com also lets you upload and share playlists from iTunes. You can browse other users' playlists, which often have tags for easy searching (Parties & Events, Brooding/Gloomy, and so on). And you can even save these playlists to your own account and play them back online for free, streaming them from Napster or Rhapsody (see "Discover New Playlists").

Your Playlist, Your Way

In the end, the point is to have fun with your playlist. A playlist is a reflection of its creator. The more of yourself you put into it, the greater the odds are that your friends and family will enjoy the results. ❌

Mathew Honan is a freelance writer based in San Francisco. His work also appears in *Wired* and *National Journal's Technology Daily*.



Discover New Playlists FIQL is loaded with ready-made, custom-built playlists just waiting for you to discover. Better yet, with the click of a button you can stream its playlists from Napster or Rhapsody, completely free of charge.

Release Your Inner Artist

Turn digital photos into paintings with Photoshop **BY SUSAN RUDDICK BLOOM**



One Photo, Three Ways Setting the Art History Brush to Dab **A** and Tight Short **B** produces two very different versions of the original photo.

Adobe Photoshop (www.adobe.com) offers a far greater range of artistic potential than most users realize. Not only can the program help you subtly enhance your digital photos, it also lets you step away from realism altogether and give your photos a painterly makeover. However, most Photoshop users don't get any further than running a single filter on an image.

Oh, that making art were indeed that easy. Using a watercolor filter on an image does not make it a watercolor painting. Just think how van Gogh's paintings would have looked if his brush strokes had always been uniform in size and direction. You want something that is unique to you and your sensibilities. Passing your image through a filter—lock, stock, and barrel—will yield an image that lacks your touch and imagination. The marks should truly be your own. So how can you achieve this kind of individuality in Photoshop? I'll share some of my favorite techniques of digital painting.

The concept of painting digitally is a strange one to most people. Using the mouse to paint is like drawing with a bar of soap in some ways. Digital tablets and styluses, such as those from

Wacom (www.wacom.com), can make the process feel more natural. They let you experience the impact of touch, and give you control over the strength of your strokes. But if you don't have a tablet and stylus, don't despair. You can also perform the following techniques with a traditional mouse.

Use the Art History Brush

The Art History Brush is generally underutilized by most Photoshop users. It's a little quirky, but lots of fun (see "One Photo, Three Ways").

First, select a photograph to which you would like to apply a painterly effect. Examine your photo for any problem areas. Perhaps there is debris on the street, a power line over a bucolic rural landscape, or an unnecessary element that distracts from the central impact. If so, correct these problems in Photoshop before starting to paint.

Add a New Layer Using the Art History Brush requires adding another layer (Layer: New: Layer) above the photograph and filling it with white (Edit: Fill). Think of this layer as your sheet of watercolor paper, where you will deposit the paint.

Select the Brush Select the Art History Brush from the toolbar. It's nested

with the History Brush and is easily identifiable by the distinctive curlicue top on the brush icon. You can modify the tool from the Options bar at the top of the screen, choosing from lots of different brush strokes. One of my favorites is Dab, found in the Style menu. Start brushing on your white layer and see what effect you can achieve. For this example, I used a brush size of 32. The bigger the brush you use, the less detailed your image will be. Conversely, the tinier the brush you use, the more detail you will achieve.

Of course, it sure would be nice to see where you are painting in relationship to the photograph. No problem—just lower the opacity of the white layer to see through to the photograph. When you're done, simply return the layer's opacity to 100 percent.

Set the Blending Mode If you'd like to pull out a bit more detail from the underlying image, try setting the layer's Blending mode to Lighten. The white areas of the painted layer will be ignored, but the colored areas will interact with the photograph beneath that layer, yielding a bit more detail.

Experiment Be sure to try out the various style offerings in the Art History Brush repertoire. For example, setting the brush's Style to Tight Short and

its Size to 70 will give you a very different effect. And, of course, there is no reason you can't combine various brush strokes in the same piece by simply changing the stroke selected.

Use the Pattern Stamp Tool

Using the Pattern Stamp tool may seem like a crazy way to make a painting, but it works.

The first order of business is, as usual, to get your photograph ready to make a painting. I took my photograph of a lighthouse, for example, on a gloomy day that was heavily overcast, with a light rain. The photo certainly wasn't very promising. In Photoshop, I lightened the image using Curves and increased the saturation.

Choose Your Tool Once your image is ready for painting, choose the Pattern Stamp tool that is bundled with the Rubber Stamp in the toolbar. Go to the Edit menu and choose Define Pattern. In the resulting window, the current open image will appear along with its name. Click on OK.

You will notice that the photograph now appears as an option in the Pattern pull-down menu, available in the Options bar. That indicates that when the Pattern Stamp tool is selected and the desired pattern is highlighted, you will be pulling the color information from the original photograph.

Begin Painting Create a new transparent layer to paint on. You're now ready to select a brush. If you were to select a regular brush from the Brush palette (Window: Brushes), you would simply make a clone of the original image. You want more than that—you want a painterly effect, like the look you would achieve with a real brush loaded with wet paint. So you need to experi-

ment a little. For my painting, I started with a brush that gave me wet edges. I also selected the options for Aligned and Impressionist in the Pattern Stamp's Options bar.

Begin painting with the Pattern Stamp brush, using the original photograph as your selected pattern. You should get a blurry, stroke-like effect. Continue to build up your brush strokes. You will see that the color builds up after repeated applications. I like the messy edges, but that is your artistic choice.

Add Texture If you have a flatbed scanner, you can try another marvelous trick using the Pattern Stamp. Scan a piece of white canvas-covered board—the kind of board sold to amateur oil painters, who don't want to stretch canvas over stretcher strips. You can then use this scanned piece of board to apply a canvas texture to your paintings. Once you learn this great technique, you can experiment further, scanning burlap and other textured surfaces to use in a similar fashion.

Now that you have your scanned image in Photoshop, select the Pattern Stamp tool and choose Edit: Define Pattern to turn the scanned texture into a

new pattern, just as you did with the lighthouse. This pattern will appear in your Pattern Stamp brush options every time you open Photoshop.

Return to your painting and create a new transparent layer, inserting it between the original photo and the painted layer. Using the Pattern Stamp brush, paint the new layer with the canvas variation, which should now be available from the Options bar's Pattern pull-down menu.

When you're done, set the topmost painted layer's blending mode to Multiply. Voilà! The painting now takes on the texture of canvas (see "Pattern Stamp Lighthouse").

Susan Ruddick Bloom is a professor of art and the chair of the department of art and art history at McDaniel College in Maryland.



By the Book This article is an excerpt from *Digital Collage and Painting*, by Susan Ruddick Bloom (2006; reprinted with permission from Focal Press, a division of Elsevier; www.books.elsevier.com).



Before



After

Pattern Stamp Lighthouse By layering brush strokes and adding a canvas pattern with the Pattern Stamp tool, I was able to turn a somewhat dreary photo into a more interesting painting.

GPS for the Mac

Let your Mac know where it is, anywhere on the globe **BY BEN LONG**

Over the past ten years, GPS technology has gone from the military to the mainstream. It's now a fixture in cars, many folks carry portable GPS units with them on outdoor adventures, and we're no longer wowed by the fact that you can precisely determine your location almost anywhere in the world.

One other thing you can do with GPS still isn't common yet—and it should be: connecting a GPS unit to your Mac. In the past, the lack of Mac software made that a cumbersome process. It's a lot easier these days.

Finding the Hardware

GPS receivers calculate exact locations by interpreting signals sent by a collection of satellites. They come in a variety of forms—the most common are handheld devices with their own screens and interfaces; they also often have serial or USB ports so you can connect them to your Mac. Currently, Garmin (www.garmin.com) and Magellan (www.magellangps.com) are the most popular brands. Handheld units have the advantage of flexibility: they work with your Mac, but you can also stick them in your pocket or set them on the dashboard of your car.

If you're thinking of a handheld, you should consider a few things while shopping:

Screen Brightness Make sure that the screen is visible in bright daylight, because you'll likely use it often in your car or in the great outdoors. Some GPS devices have color screens; others have black-and-white displays. A color screen is definitely easier to read, but you'll pay more for it.

Ports Most models these days have USB ports and ship with a standard USB cable for connection to a Mac. But

GPS Hardware Using a GPS receiver with a USB connector (such as Garmin's eTrex Legend cx, shown here), you can get GPS data on your Mac.



there are still a few popular models that have serial ports; you can connect a serial model to your Mac with the help of a Keyspan USB High Speed Serial Adapter (\$40; macworld.com/2897). (Some software won't work with serial GPS receivers. If you have a USB-based Mac, you'll be better served by a USB-equipped GPS receiver.)

Bluetooth A wireless interface can be especially useful if you plan to use a GPS unit in your car, where you don't want to hassle with cables. You pair a Bluetooth GPS device with your Mac just as you would pair a cell phone or a Bluetooth keyboard.

Radio Strength and WAAS Pricier GPS units often have stronger receivers, which will perform better when your view of the sky is restricted. If you spend a lot of time navigating around skyscrapers, or in deep canyons or thick forests, you may want to spend the extra money. If you'll be using your GPS unit in North America, one that's compatible with the Wide Area Augmentation

System (WAAS) will be slightly more accurate than one that isn't.

Maps You can download map data to many GPS units. If you plan to use your device for navigation when you're away from your Mac, being able to download detailed maps is essential. You might also want to get a model that provides expandable memory cards, so you can carry larger maps; memory cards containing map sets are available, too.

Interface and Options Make sure your GPS's interface makes sense to you. If you will be using your GPS while driving, a model that provides route planning and on-the-fly directions is your best bet. If you'll be using your GPS primarily outdoors, look for one that's water resistant.

If you know for certain that you'll always have your Mac handy when you need GPS data, then you might want to go with a device that's designed solely to connect to your computer, such as the MightyGPS Apple GPS (\$100; www.mightygps.com). Such units have no screen or user interface

PHOTOGRAPH BY PETER BELANGER

of their own, so they offer better battery life than all-purpose handhelds. They're also usually less expensive than models with their own screens. Some of these units communicate wirelessly with your Mac via Bluetooth. Before you commit to one, you'll need to be sure that the GPS software you're using works with wireless connections.

Configuring the Software

Once you've got your GPS hardware, you'll need software that will configure it and import its data to your Mac. Sadly, most GPS vendors do not currently offer Mac software. But there are a couple of ways to get around this.

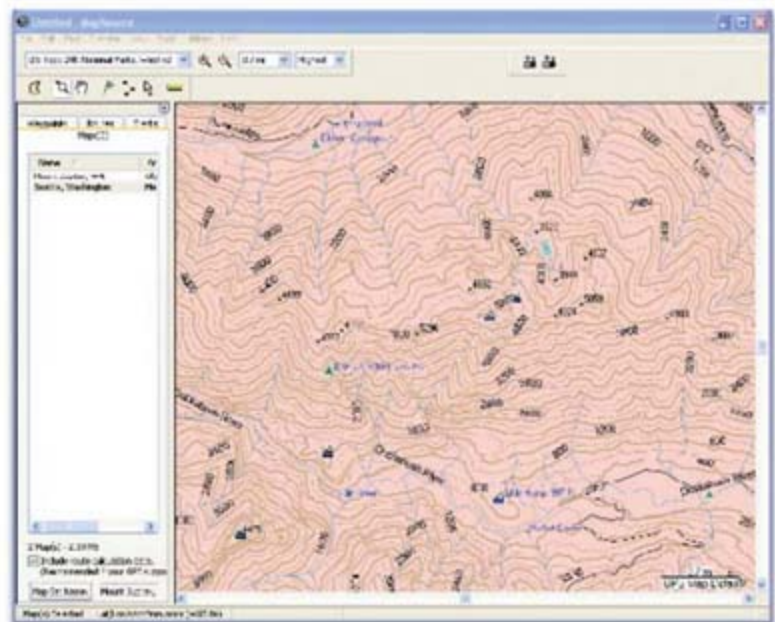
If you have an Intel Mac, you should have no problem using Parallels Desktop or Boot Camp to run Windows-based GPS applications. If that doesn't work for you, there are a number of applications that let your GPS and your Mac talk to each other. MacGPS Pro (\$50; www.macgpspro.com) and GPSTalk (\$60; www.gpsy.com) are both compatible with dozens of GPS units (check the Web sites for compatibility lists first). And the applications you're using may have built-in support for GPS hardware.

Google's planetary "browser," Google Earth (free; earth.google.com), for example, does an excellent job of reliably communicating with all major GPS models, so you probably won't have to hassle with any connection

settings or parameters.

The free version of Google Earth can import waypoints you've stored in your GPS and display them as a layer on maps. For \$20 a year, you can get a Google Earth Plus account that allows you to download data from your GPS directly into Google Earth (instead of importing, which is a more laborious process). With GPSBabel (free; www.gpsbabel.org), you can download the waypoints, tracks, and routes from your GPS device and save them in a Google Earth-compatible file. You can then import this file directly into Google Earth.

Many GPS units can find routes from one place to another. Give them two addresses, and they can plan a route for you and provide real-time driving instructions. Unfortunately, because of the limited interfaces of most GPS units, entering addresses and locations can be a real pain. RouteBuddy (\$100; www.routebuddy.com) can help; it pro-



MapSource in Parallels While Garmin doesn't yet make Mac software, you can run the Windows version of MapSource in Parallels Desktop or Boot Camp.

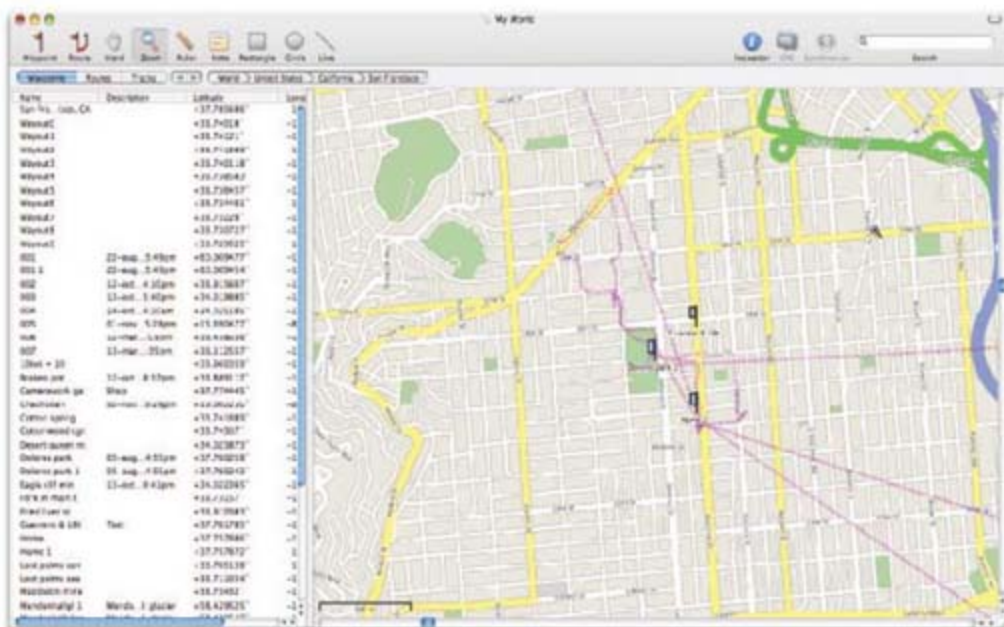
vides detailed street-level maps, automatic route-finding features, and the ability to sync routes and waypoints with your GPS. It also offers real-time map display, the ability to show RouteBuddy locations in Google Maps or Google Earth, full waypoint creation and management, and (for an extra \$50) a street map of the entire United States.

Adding Maps

All GPS units come with a smattering of map data—major highways and roads, mostly—and your GPS can show your current position on these maps in real time. However, secondary roads and small streets may not be included. For this type of detail, you need to invest in additional maps, which you then download to the GPS unit.

Unfortunately, neither Garmin nor Magellan currently makes Mac clients for transferring maps. Garmin claims that it will have a client out by the end of the year. In the meantime, you can use Parallels Desktop or Boot Camp to run Garmin's software on an Intel Mac.

I've tested Garmin's MapSource software on Parallels, with a handful of current Garmin GPS units, and it worked just fine. (MapSource also provides waypoint management, but it's not nearly as well designed as RouteBuddy.)



RouteBuddy With RouteBuddy software, you can get high-quality, street-level maps for the entire United States.

Ben Long is the author of *Complete Digital Photography*, fourth edition (Charles River Books, 2007).

At Home in Google Earth

Build a 3-D model in SketchUp and add it to Google's world map **BY GILES TURNBULL**

Chances are you already know about Google Earth (★★★★; macworld.com/2379): it's the program that lets you zoom in on almost any spot on the planet, with a remarkable level of detail. But it can do a lot more than simply let you see what your house looks like from space.

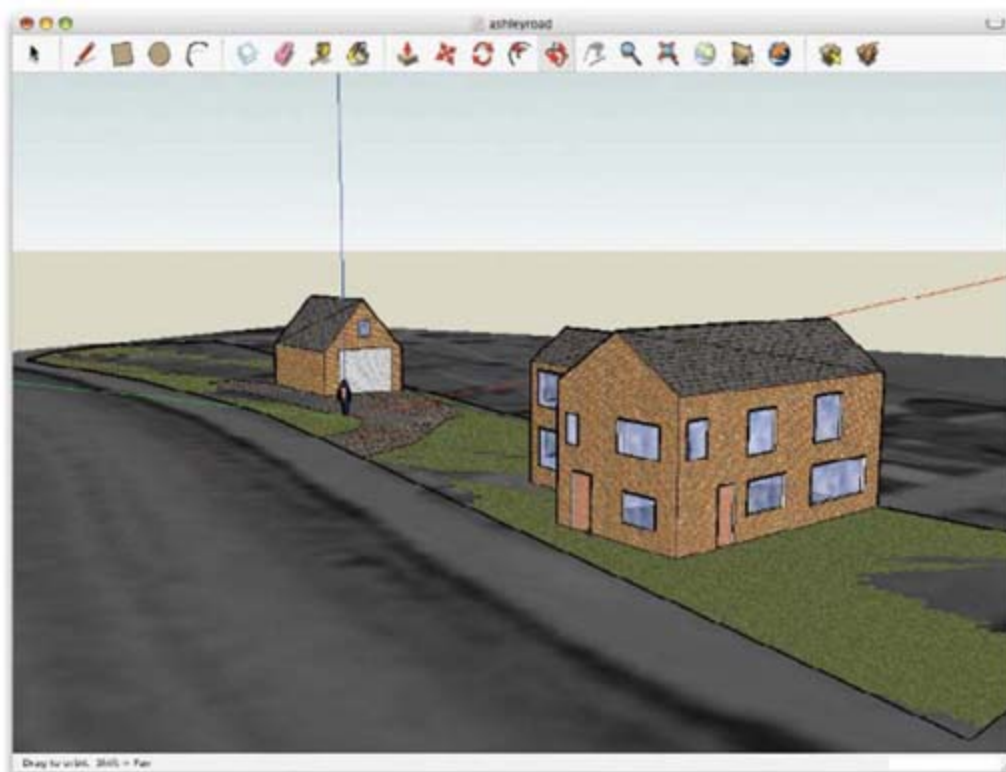
Because it's a Google product, Google Earth is integrated with other Google products and services. One of the coolest things you can do with that integration is build a 3-D model of your own house in SketchUp, Google's 3-D design tool, and place it in a Google Earth map; you can then share that map with other people via e-mail. Here's how.

Building a Home

If you don't have a copy of Google Earth yet, you can download it for free from earth.google.com. Once you've installed it, go to Google Earth: Preferences: 3D View; then make sure that the Elevation Exaggeration setting is 1, and that the Detail Area setting is Medium or Large.

That done, zoom in on your property by typing your street address into the search field. Zoom in as close as you can; make sure that you have a clear view of your land, and that the view fills the Google Earth window comfortably. Using the attitude-adjustment tool in the upper right corner of the image, adjust the view of your house to be as perfectly vertical as possible.

Now switch to SketchUp. (If you haven't already, you can download it from sketchup.google.com.) If you didn't run the basic tutorial that opens when you first launch the program, you should—the program takes some getting used to. The basic idea is that you build 3-D models by stretching and pulling on simple 2-D shapes. Draw a



Make a 3-D Model Using SketchUp's Push/Pull tool, you turn a 2-D rectangle into a 3-D structure.

square, for example, then grab its center and pull it up into a cube. Using that technique, you can (with a little practice) build almost any shape.

Assuming you've developed some familiarity with SketchUp, open a new model, and then select Tools: Google Earth: Get Current View. SketchUp will import a black-and-white copy of what Google Earth is currently displaying. This black-and-white image will serve as the template for the model of your home.

Use the Line or Rectangle tool to draw an outline that matches the outline of your house on the ground. You can then use the Push/Pull tool to drag the outline upward, turning it into a 3-D box. From there, you can subtract and expand the surfaces of your rough model until it conforms to the contours of your house.

The more you work with SketchUp's tools, the faster all this will get. (If you experience odd on-screen artifacts as you draw, go to Preferences: Open GL and turn off the Use Hardware Acceleration option.) Once your outline is done, you can add details, exteriors, textures, and materials. If you find yourself struggling to get your model right (or you just don't have time), try downloading a ready-made design from the Google 3D Warehouse (sketchup.google.com/3dwarehouse). There, you'll find everything from simple homes to elaborate skyscrapers. You can then edit that model to your liking.

You Are Here

When you're happy with your model, it's time to place it on a map. In SketchUp, select Tools: Google Earth: Place Model. You should be automati-

cally switched to Google Earth, which should be displaying your model in the right place. If the model is oriented the wrong way, return to SketchUp and use the Rotate tool to get it facing the right direction; again, you can use the original image you imported from Google Earth as your guide.

Once your model has been imported into Google Earth, you should see it listed in the Places section of the sidebar, in the Temporary Places subcategory. Right-click on its name to make changes. In particular, the Get Info option will summon a dialog box where you can edit the model's name and description; Save To My Places moves the model from the Temporary Places subcategory to your permanent Places list, so you can easily return to it another time.

Open House

Your model now exists in two places: The original 3-D model is in SketchUp, and the newly placed copy of it is in Google Earth. You can export and share either one.

To export the model from SketchUp, choose File: Export: 3D Model. This will generate a .kmz file that's compatible with Google Earth; you can send

this file to whomever you wish. As long as recipients have Google Earth, they'll be able to double-click on the .kmz file to launch Google Earth and zoom right in on your model, correctly placed on a map. To export the model from Google Earth, select File: Save: Save Place As, and then save it as a .kmz file.

Another cool way to share models is via the Google Earth Community Layer. There's a thriving online community of 3-D-model builders who add their digital constructions to Google's database. Models shared here will appear automatically for all Google Earth users who enable this layer. To add one of your models (say, of a public landmark or another notable building), right-click (or control-click) on it in the Places panel and select Share/Post. This will open a posting wizard in your browser. Be sure to read the terms and conditions, and always use the search function first to make sure you're not duplicating a model someone else has already made. ☒

Giles Turnbull is a freelance writer based in England and a frequent contributor to O'Reilly Media's MacDevCenter.

More Fun with Google Earth

Google Earth was designed to accept data from third parties, which means that lots of ingenious developers have been building their own Google Earth-linked add-ons. These are among my favorites:

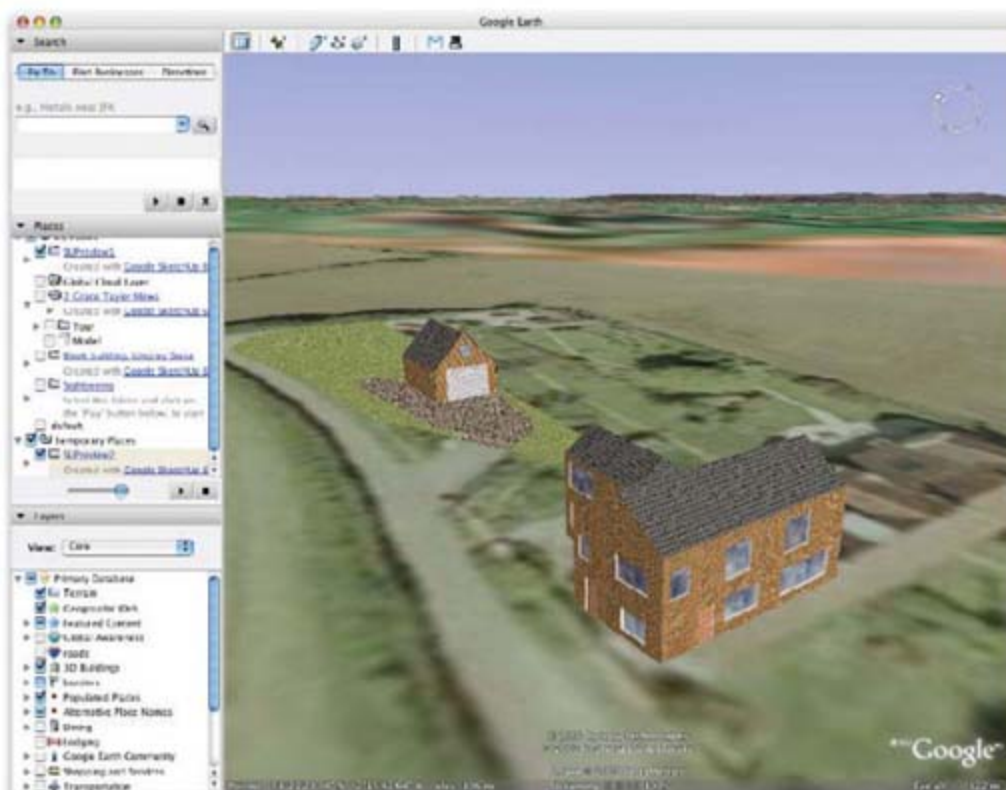
Earth Addresser, a clever tool by earthlingsoft (free; macworld.com/2905), looks up all of the addresses in your Address Book, figures out where they should appear on Google Earth, and then spits out a .kmz file that you can share with others. The developers acknowledge that you might want to consider the privacy issues of using Earth Addresser, since it involves sending all (or some) of your contacts' details off to Google, unencrypted.

Barnabu.co.uk's **Live Global Clouds** (macworld.com/2906) is a very cool Google Earth add-on that displays nearly real-time weather data (it's delayed by a few hours). Just



download it, select File: Open, and choose that file; this should add it to your Places list.

You can view selections from the **David Rumsey Historical Map Collection** (www.davidrumsey.com) as overlays within Google Earth. In the View section of the sidebar, select All Layers from the drop-down menu. Next, open the Featured Content subsection; then open the Rumsey Historical Maps section within that. Select a map from the list. You don't get the same detail that modern satellite imaging brings, but it's fascinating to step back in time and see how your hometown once looked. If you have time, you should poke around in the Featured Content layer; there's plenty of fascinating stuff in there.



Save Your Model on a Map Once you've placed your SketchUp model in Google Earth, you can save it for later viewing in your Places list.

Help Desk

Mac OS X Hints

The insider tips you won't get from Apple **BY ROB GRIFFITHS**

Hidden QuickTime Frame Numbers

Mac OS X is full of unexpected touches. Hold down the shift key before you minimize something to the Dock or activate Dashboard, for example, to see the graphical effect in supercool ultraslow motion. Likewise, the new QuickTime 7.1.6 (macworld.com/2893) has a tiny feature you've probably missed—it lets you see video time codes and frame numbers.

Time codes show you exactly what point of a movie you're at, which is important when you're trying to make precise edits. And I find frame numbers even more useful: I often want to make a cut or a splice on a particular frame, and knowing its number makes that a lot easier.

How do you view these features? At the bottom of the QuickTime Player window, next to the progress bar, a time stamp shows the position of the playhead in hours, minutes, and seconds. If you've updated to QuickTime 7.1.6, try clicking on the time display. When you do, you'll see a drop-down menu with (depending on the source of your clip) up to two additional display options: Non-Drop-Frame and Frame Number (see "New Playback Options").



Have a hint to share?

Go to MacOSXHints.com to submit it. This column was based on tips from Mark Johnson, Paul Leonard, and anonymous contributors. Each month, the author of our favorite tip receives the *Help Desk* mug.



New Playback Options Tucked into the QuickTime 7.1.6 update is a new—and if you edit video, handy—menu. Click on the time display to show options for seeing a video's time code or frame numbers.

Transform Smart Playlists into Regular Playlists

If you've used iTunes' Smart Playlist feature, you know that you can sometimes get very interesting results from it. Say you have created a smart playlist (File: New Smart Playlist) that chooses songs that are in the Latin Dance genre and that you haven't played more than two times. You've also chosen the Limit It To 25 Items Selected By Random option, as well as the Live Updating option, which continually updates the playlist. If one particular 25-song selection happens to be the perfect soundtrack for your weekly salsa-dancing practice, you could well lose it with the next live update. But you don't have to—if you know a few tricks.

There are two ways to create a standard playlist from the contents of a

smart playlist. The first is to open the smart playlist, select all the songs, and then drag them to an empty area in the leftmost column in iTunes. A new untitled playlist containing all the tracks will appear.

The second way is to drag the smart playlist from its present location and drop it on the Playlists header. The header won't be momentarily highlighted, but a new standard playlist with the same name as the dropped smart playlist will appear at the bottom of your list of playlists. (This doesn't work if the smart playlist is in a folder; however, you can move it out of the folder, drag and drop it on the Playlists header, and then move it back to the folder when you're done.) You can also use this trick to turn a Party Shuffle playlist into a standard playlist—just drag it to the Playlists header.

Work with Links within Multiple Safari Windows

If you're using Safari to do some heavy-duty browsing, you've probably got multiple windows *and* multiple tabs open at once. For instance, when doing research for a paper, you may open Wikipedia in one window and Google in another, and then ⌘-click to open multiple tabs within each window.

What happens if you see a link in a background window that you'd like to open? Try to just click on it, and the background window will move to the front, requiring that you click on the link again to open it. Try instead to ⌘-click on the link in the background window, and it will open in a new tab. That isn't too surprising, as that's the normal Safari behavior for ⌘-clicking on a link (if you've enabled tabbed browsing in Safari's preferences). What is surprising is that the link opens in a tab in the *foreground* window, leaving the background window right where it is. That messes things up if you're trying to keep your sites separate—for instance, all Google search results in one window and all Wikipedia pages in the other.

Although you can't get that link to open in a new tab in the background window, you can make it open in that window's current tab—doing so just requires a bit of mouse gymnastics. First press and hold the ⌘ key, and then click and hold on the background link you'd like to open. While still holding the mouse button down, release the ⌘ key; then release the mouse button.

WHAT'S ONLINE

Take Advantage of Spotlight Comments Use Spotlight comments to group unrelated files and more (macworld.com/2894).

Shortcut to Bluetooth Details Learn a couple of ways to find information about your Bluetooth adapter's technical details (macworld.com/2895).

Use Your Keyboard in the Font Window Navigate OS X's Font window more easily with these tricks (macworld.com/2896).



POWER TIP OF THE MONTH

Easily Create New Folders

Have you ever had to create a large series of folders, perhaps for a new project, for a new client, or just as part of organizing your massive and disorganized hard drive? It's a cinch to create a single folder in the Finder: just press ⌘-shift-N. But if you've got 20 or 30 folders to make, the process can get tedious. Terminal (/Applications/Utilities) can make things a lot easier.



Make a Folder In Terminal, the command `mkdir` creates new *directories*—in other words, folders. For instance, the command `mkdir "My Folder"` creates a new folder named My Folder in the current directory. To change the current directory, type the command `cd` and then the path to the correct location. (Drag a folder to the Terminal window to add its path automatically.) For example, if you want the folder to appear in your Documents folder, use this command:

```
cd /Users/your user folder/Documents
```

Make a Few Folders To create several folders at once, add additional names to the command. You must include quotation marks around each new folder's name if the names contain spaces—for example:

```
mkdir "My Folder" "My Other Folder" "Not That Folder"
```

Make Bunches of Folders What if you have a lot of folders to create? Start by making a text file containing the name of each folder you want to create—one entry per line. Name the file `dirlist.txt`, place it in the folder where you'd like all the new folders to appear, and then use the `cd` command to make sure you're in that folder in Terminal. Finally, type this command:

```
cat dirlist.txt | xargs mkdir
```

Each entry in the file will become a folder in the current directory.

Automate the Names When you'd like to create a selection of folders, each with the same basic name and a unique suffix—for example, Project A, Project B, Project C, and so on—you don't have to type out all those names. Use this command:

```
mkdir "Project" "{A,B,C,D,E,F}"
```

You're not restricted to single letters, of course—anything you want can go within the curly brackets. Just remember that if you want spaces in the names, you'll need to enclose them in quotes, too—for example:

```
mkdir "Project" "{New Home", "Vacation", "To Do"}
```

QuickTime Movie-Resizing Tricks

When viewing a movie in QuickTime Player, you might have used the View menu to change the size of the playback window. You can choose between Half Size (⌘-0), Actual Size (⌘-1), Double Size (⌘-2), Fit To Screen (⌘-3), and—if you've upgraded to the Pro version of QuickTime—Full Screen (⌘-F). However, QuickTime offers two other, somewhat hidden, ways for you to resize your movies.

If you hold down the option key and drag on the window-resizing triangle at the lower right corner of the window, QuickTime will resize the movie only to those resolutions that it can display most smoothly. Depending on the size of your monitor, this may give you

more viewing options than the four provided by the View menu.

The other method of resizing is to use the shift key while resizing the movie. When you hold the shift key down, QuickTime removes all constraints on the size of the movie. This can actually be useful—if you receive a clip that seems to have the incorrect aspect ratio, you can use this trick to set it to something more realistic. Of course, you can also distort clips for the sheer fun of it. After you're finished, simply press ⌘-1, and your clip will return to its default size and aspect ratio. ☒

Senior Editor **Rob Griffiths** runs the MacOSX-Hints.com Web site.

Mac 911

Solutions to your most vexing Mac problems **BY CHRISTOPHER BREEN**

Converting Unprotected DVDs

Q: Over the past 18 months, I've taken about 15 hours of video of my baby. I loaded the videos into Apple's iMovie and then burned DVDs in iDVD. (I didn't have the hard-drive space to keep the videos on my Mac.) Now I want to make a highlights video—but when I load the DVDs, I can't find the original files. What do you suggest?

Carrie Roberts

A: The data you need is contained in each DVD's Video_TS folder. However, iMovie can't read or edit the VOB (video object) files within, which hold your precious video. You need a different application to turn those files into something editable.

For this job, try Squared 5's handy and always free MPEG Streamclip 1.8 (macworld.com/2866). With the help of Apple's \$20 QuickTime MPEG-2 Playback Component (macworld.com/2867), it can convert those VOB files into something you can edit in iMovie (see "Extract Unprotected Video"). I recommend opening MPEG Streamclip, choosing File: Export To DV, and then selecting NTSC, 720 x 480, 29.97fps from the Standard pop-up menu. The resulting file is huge, but it maintains the quality of the original footage.

If you're willing to spend some money for greater ease of use, you'll



Extract Unprotected Video Want to create a highlight video from footage you've burned to disc in iDVD? No problem. With Apple's QuickTime MPEG-2 Playback Component plug-in and Squared 5's MPEG Streamclip, you can extract video from unprotected DVDs.

want to check out two programs. The first is DVDx2V's \$25 DVDx2V 1 (★★★★; macworld.com/1473). With it, you can extract movies from a Video_TS folder or individual VOB files and save them in any QuickTime-supported format.

Likewise, Miraizon's \$60 Cinema-tize 2 (★★★★; macworld.com/2868) lets you export files in a variety of formats from a Video_TS folder, though it can't extract data from individual VOB files. In addition, it breaks movie files into "scenes," defined by areas of black in your movies. Neither utility requires that you have the MPEG-2 Playback Component installed.

Diagnosing the Apple TV

Q: I'm not sure my Apple TV is working properly. It's slow to respond to commands, and sometimes it can't "see" the Mac from which I want to stream movies. Is there some way to check whether it's working properly?

Matt Graham

A: Hold down the menu and minus (–) buttons on the Apple Remote until the Apple TV flashes a yellow light. It will eventually restart and display a Language screen. Select the language you wish to use, and press the play/pause button.

You'll see an Apple TV Recover screen, which lists three options:



Have a problem?

Go to the Mac 911 forum (macworld.com/2467) for help with your misbehaving Mac or applications.

Restart, Run Diagnostics, and Factory Restore. Select Run Diagnostics and press play/pause. You'll see the familiar spinning-gear icon along with a message that reads "Running Diagnostics" until the test is complete. At that point, you *hope* to see the message "Your Apple TV is working correctly." If so, click on Done to return to the Apple TV Recover screen, select Restart, and press the play/pause button to restart the Apple TV. If you see an error message instead, it's time to return the Apple TV to Apple for servicing.

If the Run Diagnostics test is successful but you still have problems, make sure that your Mac is awake and that iTunes isn't locked up or unresponsive. Also check to see that you've got a decent network signal in the Apple TV's Settings screen—two bars or more. You can determine this signal's strength by looking at the Settings: Network menu on your Apple TV. (If the signal is too weak—and you can't fix it by, say,

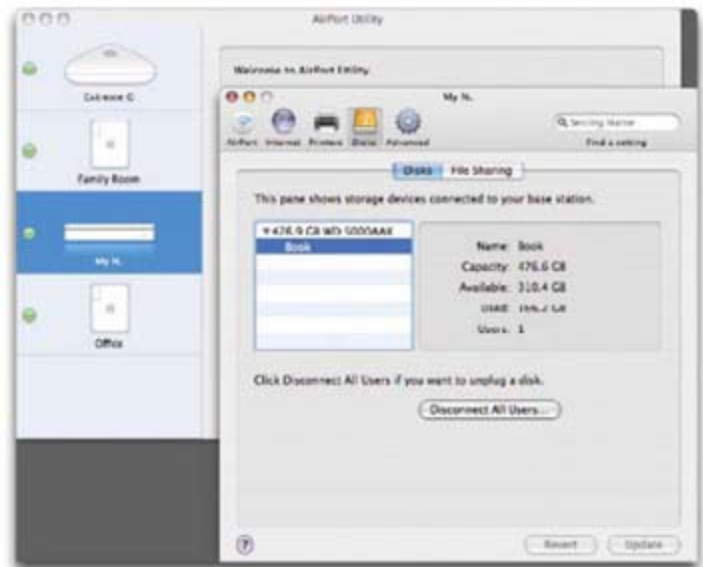
moving your Apple TV or wireless router to a better location—try using a different network connection such as wired Ethernet.)

If you've got a strong signal but the Apple TV remains hesitant to play music and videos, you can try restoring it to the original factory settings. Choose Factory Restore from the Apple TV Recover screen. Doing so wipes out your network settings and removes any media you've synced to the Apple TV.

AirDisk and Apple's Backup

Q: Can I use Apple's Backup in conjunction with a USB drive attached to a new AirPort Extreme Base Station?

Calvin Johnson



Wireless Backups You can use a USB drive connected to a new AirPort Extreme Base Station to back up your data, but it will be slow going.

A: You can. And there's a good reason to do so if you have a bunch of Macs: using this scheme, you can back them all up to a single drive, because it will be available to any Macs you have on your network.

To start, hook up the external USB drive to the AirPort Extreme Base Sta-

Bugs & Fixes BY TED LANDAU



Zinio Reader Rejection If you use the Zinio reader (www.zinio.com) to subscribe to digital versions of magazines, you may find that it refuses to open or download your issues after you transfer your data to a new Mac or restore a hard drive. To fix this, delete the Zinio application and a trio of files located in your user folder/Library/Preferences: ContentGuard.com.zinio.reader.plist, and Zinio.plist. Be sure to empty the Trash after putting the files there. Finally, reinstall Zinio Reader, and the application should once again see you as a valid subscriber.



HelpMate Won't Help Mac HelpMate 2.0 (free; macworld.com/2877), from Most Training & Consulting, is a top-notch utility offering dozens of performance-enhancing and troubleshooting features. But the program can't help much if it refuses to open—which can happen after you update to a new version. Upon launching, the program may display a "preference conflict detected"

error message that asks whether you want to reset the preferences, but clicking on Yes here doesn't seem to solve the problem. Instead, go to your user folder/Library/Preferences and remove the com.most.mhm.plist file yourself. The program should now launch successfully.



Google Desktop Slowdown When it comes to helping you search your computer for just the right file, the free Google Desktop (www.google.com/desktop; macworld.com/2748) is a worthy competitor to Mac OS X's Spotlight. But in some cases, its excessive CPU usage can slow a Mac's performance to a crawl. If you're having that problem, use the Google Updater application (in /Applications) to uninstall the software. You'll have to wait for Google to release a fix before you reinstall it.



QuickTime 7.1.6 Hassles Updating to QuickTime 7.1.6 may break the ability of the free

Microsoft Windows Media Components for QuickTime (also known as the Flip4Mac WMVPlayer) to play movies in a Web browser. Updating to the most recent version (2.1.1 or later) should fix this (download it at macworld.com/2878). Even after updating, you may need to reboot your Mac before movies will play.

The same QuickTime update can also break Safari's ability to play Flash content. If you encounter that problem, the workaround is to open the QuickTime preference pane, go to the Advanced tab, and click on MIME Settings. Find Miscellaneous in the list, and click on the disclosure triangle next to it to reveal the Flash Media subitem. If it's enabled, click on the check box to deselect it.

Senior Contributor **Ted Landau** is the founder of MacFixIt (www.macfixit.com), a Web site devoted to reporting Mac problems and solutions. Got an issue to report? E-mail us at bugs@macworld.com or post it in our Mac 911 forum at Macworld.com.

tion's USB port. Then verify that the Base Station recognizes it by launching AirPort Utility (in /Applications/Utilities), opening the configuration profile for the Base Station, and clicking on the Disks tab. You should see your drive listed there (see "Wireless Backups").

Back in the Finder, choose Go: Connect To Server. Click on Browse in the resulting Connect To Server window, find the name of your Base Station, select it, and click on Connect. Select the drive in the window that appears and click on OK. Then enter your AirPort password to mount the drive. All you need to do after that is launch Apple's Backup (ⓂⓂⓂⓂ; macworld.com/2496) and choose that networked drive as the destination for your backup plan. (If you don't have Backup now, you can get it by subscribing to Apple's .Mac service.)

Although this method is generally convenient, it does have a significant drawback. It's slow—*really* slow. I found that backing up 50GB of data from my MacBook Pro took most of the day over a wireless 802.11n network. If you're backing up just one computer, it makes a lot more sense to connect the backup drive directly to that computer.

Also, be aware that Backup can't mount a drive attached to an AirPort Extreme Base Station. You need to make sure the drive is mounted *before* you begin the backup.

iSight Alternatives

Q: Now that all new Macs come with a Web cam built in, Apple has discontinued the iSight. But that's a problem for me and my older Mac. There don't seem to be any Mac-friendly Web cams out there—in other words, ones that "just work" without additional software. Any suggestions?

Via the Internet

A: The simplest solution is to find an old iSight camera. Some non-Apple retail stores have a few in stock. You can also find iSights on eBay (but be prepared to pay a premium).

If that doesn't pan out, you'll find that tracking down a Web cam that works with the Mac is easier now, thanks to the UVC (USB Video Class) standard—an open standard for video



TOOLS OF THE TRADE

ExpressCard Essentials

Having traded in my old PowerBook G4 for a new MacBook Pro, I miss exactly one of the PowerBook's features—the CardBus slot. The handful of cards I acquired for my PowerBook are not compatible with the MacBook Pro's ExpressCard/34 slot. That means it's time to line up replacements. Here are the ExpressCards I'm considering for my mobile gear bag.

Media Reader To avoid unnecessarily draining my camera's battery while transferring photos to my computer, I use a media-reader card. Several companies offer media readers in ExpressCard/34 form—for example, Griffin Technology's 5:1 Card Reader (\$30; macworld.com/2871) and Belkin's Multimedia Reader and Writer ExpressCard (\$30; macworld.com/2872). These cards support small-form media cards, including SD and Memory Stick cards. If, like me, you have a digital camera that uses CompactFlash cards, look to Delkin Devices' eFilm ExpressCard 34 (\$60; macworld.com/2873).

Wireless Broadband I see other MacBook Pro users lounging around parks, surfing the Web at high speeds when I know darned well there's not a wireless access point within miles. Glancing at their ExpressCard slots reveals the telltale hunk of black plastic and stubby antenna that adorn EVDO wireless card adapters. These adapters allow you to use your wireless carrier's broadband data capabilities and surf the Web at speeds of up to 2 Mbps. Wireless carriers offer these cards for around \$60 (and for far less with a two-year commitment). Data plans cost around \$60 a month.

An Abundance of Ports The MacBook Pro includes a single FireWire 400 port and a single FireWire 800 port. If you want more ports, an ExpressCard can provide it. Belkin offers the \$100 USB 2.0 and FireWire Express Card (macworld.com/2874). It includes one USB 2.0 port and two FireWire 400 ports. Another option is Belkin's \$100 FireWire 800 ExpressCard (macworld.com/2875), which bears two FireWire 800 ports. SIIG offers the \$100 FireWire 800 1-Port ExpressCard/34 (macworld.com/2876). As its name suggests, it has a single port.



devices. Apple added support for UVC Web cams with Mac OS X 10.4.9.

Just plug a UVC-compliant camera into a Mac running this operating system (or a later one), and it should work. (To see a list of compatible Web cams, go to macworld.com/2869.)

If you're running an earlier version of Mac OS and therefore can't take advantage of a UVC Web cam, try Ecamm Network's \$10 iChatUSBCam 2.2.1 (macworld.com/1637). This software allows Macs to use an even wider variety of third-party Web cams. It requires OS X 10.3 or later and is Universal (in other words, you can use it on either an Intel Mac or a PowerPC Mac).

But you might not need to buy anything at all. If you have an old Fire-

Wire camcorder with a built-in microphone, you can use it as a Web cam. Just attach it to a free FireWire port and switch it into camera mode. iChat AV should recognize it as a viable source. Read the camera's manual to learn how to keep it switched on—most cameras will turn off after a period of time by default. For example, you may need to turn off an energy-saving setting, remove the tape from the camera, or switch the camera into its single-image capture mode. ☒

Senior Editor **Christopher Breen** is the author of *The iTunes and iPod Pocket Guide*, second edition (Peachpit Press, 2007), as well as many other books about the iPod and Mac OS X.

ICON BY PAUL HOWALT

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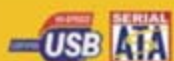
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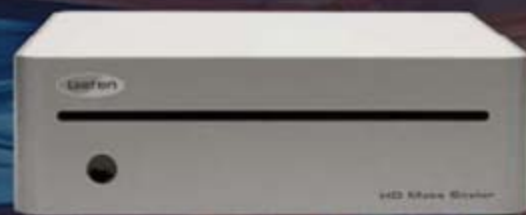
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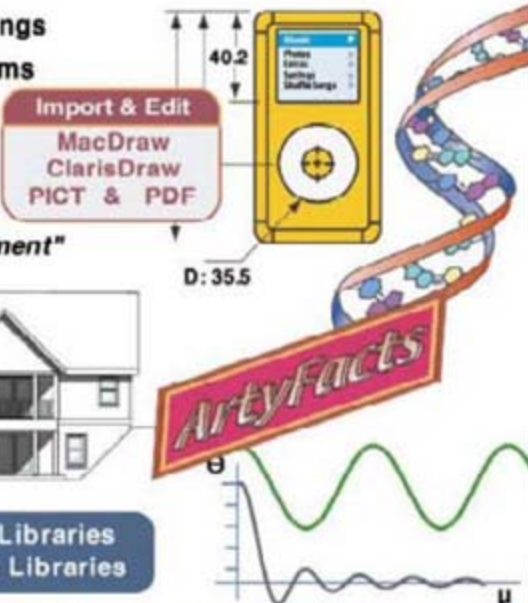
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The New Frontier

Mac OS X is a mature technology; the iPhone is anything but.

Anyone hoping that Steve Jobs would make some sort of bombshell announcement during his keynote at the 2007 World-wide Developers Conference came away disappointed.

The news about the upcoming Mac OS X (Leopard) was mostly a refinement and clarification of what Apple outlined last August at WWDC 2006. The new things Jobs did announce—the translucent menu bar; the Dock's pseudo-3-D tray; the revised, iTunes-like Finder; and the consistent systemwide look-and-feel of windows—were mostly cosmetic.

But this isn't necessarily bad. The relatively low number of significant changes to Leopard since WWDC 2006 is, more than anything else, a sign of OS X's maturity.

Solitary Refinements

From the late 1980s until the release of OS X, Mac users obsessively speculated about the next Mac OS. Pink, Taligent, Copland, Gershwin—the list of next-generation Apple operating systems that never came to fruition is long. Users wanted something new, something that would be as big a leap from the then-current operating system as the original Mac was from the Apple II. When Apple transitioned from OS 9 to OS X, we finally got it.

The initial major releases of OS X were exciting because the early versions had such gaping holes and serious performance flaws. The only reason it was possible for Apple to improve OS X so much between 10.0 and 10.4 was that there was so much room for improvement.

I'm not arguing that there's *no* room left. It's just that OS X 10.4 is so fundamentally good that future upgrades are likely to be on the scale of small refinements.

Apple's long-term strategy for desktop computing seems to be refining OS X, not replacing it.

This history is analogous to that of the automobile industry. In its early years, the state of the art advanced at a remarkable clip. Today, new cars come out each year, but with small refinements. Those changes add up: a 1997 car (even in mint condition) is clearly distinguishable from a 2007 model. But a 2005 and a 2008? Not so much. That's pretty much where we are with OS X. Tiger is the 2005 model; Leopard is the 2008.

The 3.5-Inch Revolution

With the iPhone, on the other hand, Apple is heading into uncharted territory. The fundamental elements of the Mac interface are overlapping windows, the menu bar, and the mouse pointer; the iPhone has *none* of these. Every Mac ever sold has had both a keyboard and a pointing device providing single-pixel precision; the iPhone has no physical keyboard, and while using your finger is convenient, it's far less precise than using a mouse, trackpad, or stylus.

The iPhone's 3.5-inch screen is now the biggest frontier in interface design.



To accommodate this lack of precision, the iPhone provides much bigger on-screen targets than any Mac, on a smaller screen. As the size of desktop displays has increased, the Mac user interface has been able to display more and more information on screen. The iPhone deliberately displays *less*. When listing messages or songs, for example, rather than trying to fit as many as it can on screen, the iPhone uses a generous row height, making them easier to tap.

The iPhone interface isn't about refining and improving something that already exists. It's about completely new ideas in user-interface design. So it's no wonder that many Mac developers so desperately hope to write their own software for it.

Currently, Apple's only statement about third-party software development for the iPhone has been that the iPhone will run Web applications through its built-in Safari browser. That's a great feature for such a tiny device—no argument there. But a Web page inside a browser is no more a venue for a real iPhone app than it would be for a real Mac app.

Even if Apple privately plans to allow the development of third-party iPhone software in the future—with an iPhone variation of Cocoa, Dashboard-like widgets, or both—the company won't say anything until those plans are ready. "Underpromise and overdeliver" is a strategy that has served Apple well in recent years.

There has been some speculation that Apple might bring iPhone innovations, such as the multitouch screen interface, to the Mac. Anything is possible, but I think that multitouch Mac displays are unlikely and would be unwise. And the simple truth is that OS X doesn't need an interface revolution.

The iPhone's screen measures just 3.5 inches, but it's now the biggest frontier in interface design. ❌

John Gruber writes and publishes the Mac Web site Daring Fireball (daringfireball.net).

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